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ABSTRACT

Issues pertaining to the prospect of decline in British higher education are considered. The following topics are addressed: The 1963 report of the Committee on Higher Education (Robbins Report), the pattern of change in higher education over the past 20 years; the basic issues of scope, diversity, access, and public service; patterns of participation in college--demand and access; degree programs; grants and loans; autonomy, tenure, and the academic profession; the quality of teachers and instruction; the relationship between research and teaching; management models; and higher education policy and resource allocation. It is projected that in the future there will be a call for research and development for industry and government, for continuing education for adults, and for public service to meet the needs of local and national communities. Two-year degrees are recommended to help survive the harsh climate. Further essential ingredients would be robust institutional management, fixed-term contracts for senior academic posts, together with systematic evaluation of performance. An article on international comparisons in higher education by Ladislav Cerych is appended. (SW)

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RESPONSE TO ADVERSITY

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Gareth Williams
& Tessa Blackstone

RESEARCH INTO HIGHER EDUCATION MONOGRAPHS
2

RESPONSE TO ADVERSITY

'... adversity is not without comforts and hopes. Prosperity doth best discover vice, but adversity doth best discover virtue. ...'

Francis Bacon

RESPONSE TO ADVERSITY

Higher Education in a Harsh Climate

Gareth Williams
& Tessa Blackstone

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FOREWORD

In the middle of the seventeenth century, following the massive expansion and prosperity of Tudor and early Stuart times and the complacency they engendered, English higher education went into one hundred and fifty years of decline and stagnation. We hope historians of the future will not be able to claim that the traumas of recent years heralded a similar decline.

We are now nearer to the twenty-first century than to the publication of the Robbins Report. The higher education system that emerges from the current crisis is likely to be the one with which Britain enters the new century. Demographic trends make it very improbable that there will be any new universities or colleges for many years. Adaptation without growth will be the key to survival and revival.

In the programme of study on which this book is based, nine specialized volumes have already been published. They deal with the labour market, access, institutional change, the future of research, the arts, learning and teaching, resources, structure and governance. Each contains policy proposals together with specially commissioned papers reviewing evidence in the area concerned. The proposals derive from some measure of consensus in specialist seminars but are not agreed recommendations. We take account of, but do not repeat, the findings of these reports. Our aim is to draw conclusions from the programme as a whole and to stimulate positive, realistic thinking about the functions of academic institutions in the late twentieth century.

We wish to thank Toni Griffiths for the research report on which the account of recent history in Chapter 1 is based. Thanks are also due to Michael Clapham, Oliver Fulton, Maurice Kogan, Michael Shattock and Leslie Wagner for detailed comments on an earlier draft, to David Gardner and Alec Ross for their helpful advice, and to Deirdre Daglish for typing and retyping a difficult manuscript.

Above all thanks are due to the Leverhulme Trust for providing the money and to the Programme Administrator and Research Secretary, Betsy Breuer, whose efforts ensured that the programme started in the first place and kept on course throughout.

April 1983

Gareth Williams
Tessa Blackstone

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1

IMPOSSIBLE DREAM

ROBBINS AND THE AGE OF EXPANSION

The report of the Committee on Higher Education (Robbins 1963) was published twenty years ago. It legitimated, but did not initiate, massive expansion in higher education. The pressures for growth were already there. There was a rising teenage population and a rapidly growing proportion of pupils staying on at school beyond the minimum leaving age. Expansion in Britain was part of a worldwide phenomenon in which the number of students increased from 11 million in 1960 to 27 million in 1970 (UNESCO 1975). The expansion of secondary education after the 1944 Education Act meant that by the 1960s a big increase was inevitable in the demand for higher education; by 1961 there were distinct stirrings of change. Eight new universities and ten colleges of advanced technology (CATs) were created between 1957 and 1961 to help higher education meet student demand and the needs of a modern economy. A proposal of the 1944 McNair Report to lengthen the teacher training certificate course from two to three years was finally implemented in 1960. This brought huge increases in the numbers of student teachers.

In 1961 the pressures of expanding numbers and fears that traditional higher education might not be meeting the curricular needs of an increasingly technological society led to the appointment by the Prime Minister, Harold McMillan, of the Committee on Higher Education. The Robbins Committee reported in 1963 in the run-up to a general election, and it is symptomatic of the spirit of the times that the government immediately accepted the main recommendations for expansion and made funds available to the University Grants Committee (UGC) to meet the targets for 1971. A fundamental Robbins 'axiom' was that 'courses of higher education should be available for all who are qualified by ability and attainment to pursue them and who wish to do so.' The government had already accepted the Anderson Report (1960) proposal that mandatory grants should be available for all full-time degree-level students with two or more passes at GCE 'A' level, and on this basis the Robbins principle came to be the main criterion determining the overall provision of resources for higher education. The proportion of the age group entering full-time higher education was expected to increase from 8 per cent to 17 per cent between 1961 and 1981, resulting in an increase in student numbers from 216,000 to 560,000.

The Robbins Report was university-orientated: its recommendations

implied the continuation of a dominant university sector and possible 'promotion' of other institutions to university status. The universities' share of higher education places was to go up from 55 per cent to 60 per cent in 1980 and a further 30 per cent were to be in teacher training colleges associated with universities. The CATs would become universities; new technological institutions with university status would be established; and some regional colleges might eventually move up. Six more new universities were proposed (in addition to the eight universities already planned by the UGC), existing universities were to be expanded and ten regional colleges were to be promoted into universities. Teacher training colleges would be renamed 'colleges of education' and linked to universities. They would offer an additional four-year course leading to both a degree and a professional qualification — the BEd. A new Council for National Academic Awards (CNAA) would replace the National Council for Technological Awards and would validate courses and give university-type degrees in the further education sector.

Dramatic though the proposals appeared to be, Robbins had actually underestimated the demand for higher education throughout the 1960s. The proportion of school-leavers obtaining two or more 'A' levels grew much faster than the Robbins forecast of 10 per cent by 1971 and in the event the figure was 14 per cent. By 1970 *DES Planning Paper No. 2: Student Numbers in Higher Education in England and Wales* (with its companion volume for Scotland) was forecasting that by 1981 22 per cent of school-leavers would obtain 2 or more 'A' level or 3 or more 'H' level passes. However, the tide had turned and the figure remained below 14 per cent throughout the 1970s.

The debate on overseas students began in the immediate post-Robbins years. The Report recommended that the proportion of such students should remain constant, but the UGC advised universities against making increases proportionate to the increase in home students and the figure fell from 11.5 per cent in 1961-62 to 9 per cent in 1966-67. Numbers were further restrained following the strong government advice to universities in December 1966 to raise fees to overseas students to £250 a year compared with the normal fee of £50.

Government action on the recommendations about structure included designating the ten CATs and four Scottish central institutions as universities, renaming the teacher training colleges, establishing the four-year BEd and in 1964 establishing the CNAA. There were, however, to be no further new universities. The reaction of the existing universities to the Robbins scenario of expansion had been to provide evidence that they could cope, and the government decided that no more universities would be needed apart from Stirling. There were no new technological universities. The government asked instead for an early report on the strengthening of three existing colleges as specialized science universities: Manchester, Strathclyde and Imperial College, London. No regional or

teacher training colleges became universities.

In 1967 the UGC, accepting the Robbins principle of a student demand-led criterion, issued a memorandum of guidance to the universities taking the view 'that in the light of the present A-level trends the major increase must be in the number of arts-based rather than science-based students.' This was one among several developments which some commentators claim marked a change from a reactive 'buffer' role much admired by observers of the British university scene to a more directive style. It is debatable whether the UGC was ever really passive, but there is no doubt that as the university system expanded it became more actively interventionist, while at the same time defending the principle of university independence from outside pressures other than its own.

By 1961-62 grants from the UGC to universities had risen to 70 per cent of their recurrent income, and Robbins warned that the dominance of one source of finance was a cause for concern. The trend, however, was still upwards and by 1968 some people were asking whether genuine university autonomy was compatible with four-fifths of university income coming in the form of direct subsidies. A comprehensive review of the Universities Vote was made in 1965 by the Public Accounts Committee of the House of Commons and it recommended that the Comptroller and Auditor General be given access to the books and records of the UGC and universities. The Secretary of State for Education and Science, Anthony Crosland, agreed that 'this large item of government expenditure, which has risen over the last 20 years from £4 million to £200 million per annum, can no longer be the sole major exception to the normal requirements of Parliament regarding scrutiny and report by the Comptroller and Auditor General' (Kogan 1969).

EMERGING DOUBTS

Challenges to the Traditional University

It was in the year that the Robbins Report was published that Harold Wilson made the first mention of the University of the Air, a possibility ignored by Robbins. Wilson described it as being concerned with technological advances, meeting the need for retraining and releasing much untapped talent and bringing egalitarian and cultural benefits. A White Paper in February 1966 was followed by the granting of a Royal Charter in 1969. By the 1980s the Open University (OU), with 60,000 registered students, was larger than any other British higher education institution.

Robbins anticipated that by 1980 most higher education would be in universities or university-dominated teacher training institutions. However, only two years after the Robbins Report Anthony Crosland announced the binary policy and prevented that happening. The reasons he gave for the new policy included the growing need for vocational, professional and industrially-based courses that could not be fully met by the universities. According to Crosland, a system based on a ladder concept 'must invariably

depress and degrade both morale and standards in the non-university sector. If the universities have a "class" monopoly of "degree giving" and if every college which achieves high standards moves automatically into the university club, then the residual public sector becomes a permanent poor relation, perpetually deprived of its brightest ornaments, with a permanently and openly inferior status.' In a highly competitive world Britain could not survive 'if we ... alone downgrade the non-university professional and technical sector.' Finally, it was desirable that a 'substantial part of the higher education system should be under social control, and directly responsive to social needs' and it was also desirable 'that local government, responsible for the schools and having started and built up so many institutions of higher education, should maintain a reasonable stake in higher education' (Crosland 1965).

The 1966 White Paper *A Plan for Polytechnics and Other Colleges* aimed to concentrate higher education outside the universities in thirty-one polytechnics in England, Wales and Northern Ireland and fourteen central institutions in Scotland. This intention was reinforced by the next government's 1972 White Paper *Education: A Framework for Expansion*.

Crosland believed that polytechnics could achieve 'parity of esteem' while fulfilling educational objectives different from the universities. Whether the binary policy had the desired result became a matter of debate. The development of the polytechnics did not substantially change the dominance of the three or four-year specialized Honours degree obtained by full-time study. There were sharp falls in the number of part-time students in most polytechnics, mainly because they had transferred much of their lower-level work to other further education institutions. In the process, it was claimed, they took on a more 'middle-class' flavour, moving steadily towards the modes and aspirations of the universities, illustrating the power of 'academic drift' (Burgess and Pratt 1976). Conversely, several universities adapted their courses to meet changing patterns of student demand and the distinctions began to blur. The system has come increasingly to resemble the 'ladder' deplored by Crosland. The CNAA played a role in the convergence of the two sectors. By the autumn of 1971 28,000 students on 364 courses in 42 institutions were taking CNAA degrees. There are now 1,997 courses leading to CNAA-validated degrees being taken by 156,250 students in 151 institutions. The publication in 1979 of the CNAA's *Developments in Partnership in Validation*, proposing more institutional independence in validation, symbolized moves in the direction of university-type autonomy.

The Swing from Science

Throughout the post-Robbins period there has been debate about whether sufficient emphasis in both secondary and higher education is given to scientific and technological education. However, most informed observers saw the problem not as one of a swing from science but as that of excessive

early specialization. It is worth noting that science and technology continue to claim a larger share of students in British higher education than in most other countries of Western Europe, North America and Japan (see OECD 1981). Robbins described the four aims of higher education as instruction in skills, promotion of the general powers of the mind, the advancement of learning and the transmission of a common culture, and laid great stress on the need for broadly based degrees, especially in England. Although some universities claimed to be drawing new maps of knowledge, university first-degree courses were not broadened sufficiently to affect school practice fundamentally — a fact lamented by Lord Robbins himself nearly twenty years later (Robbins 1980). A Committee of Enquiry into the Flow of Candidates in Science and Technology into Higher Education was set up in 1968 under the chairmanship of a distinguished scientist, Frederick Dainton. Its report urged that engineering, technology and science should be made 'more attractive throughout the whole of education and in employment.' Dainton also recommended that 'all pupils in the sixth form should follow broad courses of study that keep open the options (both for subjects of study in higher education and for eventual occupation) as late as possible in the individual's educational career.' However, concern about the technological education continued and led to the establishment of the Finniston Committee on the engineering profession. Its report in 1980 recommended two levels of first-degree course and the inclusion of elements of training in engineering applications in other first-degree courses.

Student Unrest

Student unrest was a characteristic feature of the late 1960s and early 1970s. It was less violent in Britain than in much of the rest of Europe or in the United States or Japan but there were, nonetheless, big demonstrations over various issues, providing useful ammunition for those who had opposed expansion of publicly financed higher education. In general, students wanted greater participation in the affairs of their institutions, particularly where deficiencies were apparent as in questions of accommodation, teaching and examination systems and differences in social amenities. In 1969 a House of Commons Select Committee report, *Student Relations*, concluded that 'whilst there has often been a deliberate concentration on local domestic issues, there has been, at least among student activists, a growing awareness of political objectives, in terms both of the student's claim to be involved in the government of the institution of which he is a member and of his relationship with society at large. ... It is dangerously facile to attribute student unrest to a few troublemakers.' Reasons for student unrest commonly advanced in evidence to the Committee included: deterioration in communications and personal relationships following rapid expansion of the number of students; uncertainty in students' minds about the role they expect or are expected to play; dissatisfaction with the obvious inequalities between universities

and other institutions of higher education; an inability to affect the decision-making process; dislike of the authoritarian system represented by the phrase *in loco parentis*; a fundamental difference of approach between school and higher education; apprehension about careers; resentment against society; and concern about world issues. The report noted the 'haphazard way in which courses in general have developed during the expansion of the universities and the colleges and (we) believe that a more realistic appraisal and review is necessary.' Commenting on the standard of teaching, the report thought that 'the present situation is not satisfactory.'

The Committee suggested the establishment of a higher education commission with responsibilities extending to all institutions of higher education — a proposal which was echoed by several House of Commons Select Committee inquiries during the 1970s. It noted a feeling of first and second-class citizenship in higher education and thought that 'in the context of student relations the binary system is unfortunate.' The Committee suggested that all institutions of higher education should be financed in the same way. Other recommendations were that more attention be paid to introducing students to basic questions and common problems in their courses, and changes be made in examinations, accommodation, teaching, staff/student relations and participation and representation in institutional government. The Committee proposed student representation on governing bodies, academic boards and other committees; and many university charters were subsequently amended to allow this.

The Saga of Teacher Education

This was another area in which developments were not exactly as had been foreseen by Robbins. In 1961 there were 40,000 students in teacher training. In 1962 a report, *The Demand and Supply of Teachers 1960-80*, from the National Advisory Council on the Training and Supply of Teachers (NACTST) identified several factors, including a rising birthrate and the lengthening of the teacher training course, which indicated the need for considerable expansion in teacher training capacity. A decade later there were 120,000 student teachers.

This remarkable expansion demanded considerable efforts in the colleges. The period from 1965 to 1970 was marked by a '20 per cent productivity exercise' — a demand from government to the colleges to produce an annual 20 per cent increase in student numbers at little extra cost. The increase was achieved by such arrangements as shift systems, rotation box and cox schemes, the four-term year, overcrowding in lectures and libraries, and 'squeeze-up'.

Expansion of the numbers of student teachers was followed by concern about the content and organization of teacher training. The Parliamentary Select Committee on Education and Science took evidence on this subject in 1970 and heard widespread demands for a major inquiry.

After the 1970 election a seven-man committee, chaired by Lord James of Rusholme, was set up 'to enquire into the present arrangements for the education, training and probation of teachers in England and Wales, and in particular to examine:

1 What should be the content and organisation of courses to be provided;
2 Whether a proportion of intending teachers should be educated with students who have not chosen their careers or chosen other careers;
3 What, in the context of 1 and 2 above, should be the role of the maintained and voluntary colleges of education, the polytechnics and other further education institutions maintained by the local education authorities, and the universities, and to make recommendations.'

Much of the evidence presented to the James Committee called for a form of 'comprehensive' higher education, with the financing mechanisms of the UGC and the DES and the local education authorities (LEAs) merged into a single higher education commission.

The report, *Teacher Education and Training*, was published early in 1972. It proposed that teacher training should be organized in three cycles, the third of which, in-service training, should have high priority. The first two, pre-service higher education and professional training, should extend over four years. The first cycle should lead to a higher education award recognized as a qualification for entry to the second cycle. A new two-year course would lead to a Diploma in Higher Education (DipHE), an award which was considered to have value both for student teachers and for other students. The second cycle would comprise a year in a college or other institution undergoing training specifically related to the teacher's needs in a first appointment (thus, consecutive rather than concurrent training, as formerly). With the status of 'licensed' teachers there would follow a year of school-based training. In-service training for all teachers in the school would be co-ordinated by a 'professional tutor'. On successfully completing the two-year second cycle training, students would be awarded a BA (Education) degree. The third cycle would provide for in-service training of no less than the equivalent of one term in every seven years. This was regarded as crucial.

The James proposals came at an unfortunate time. Questions about the nature of teacher education were soon superseded by a preoccupation with how many teachers were needed. The birthrate began to decline as early as 1965 but this did not affect teacher training policy for several years. This is understandable. Birthrate forecasting is a hazardous exercise and it was not easy to predict whether the decline would be a short-term or long-term phenomenon. Furthermore, it would have been politically difficult to reduce teacher training capacity at a time when there were obvious shortages of teachers in schools. However, it can be argued that the

formulation of policy was not helped by the suspension of the NACTST in 1965 on the grounds that it did little that the DES could not do itself (Crosland in Kogan 1971). It was only in 1972 that a reversal in the government's policy on teacher training places became visible. Then, the White Paper, *Education: A Framework for Expansion*, made it clear that teacher education capacity was to be reduced at a time when some expansion of higher education generally was still intended (to 750,000 places in 1981). The objective was a teaching force of 510,000 in 1981, implying a reduction from 120,000 training places to about 70,000.

The binary system was consolidated when the process began of merging many of the colleges into the mainstream 'public sector' of higher education. In March 1973, DES Circular 7/73, *Development of Higher Education in the Non-University Sector*, called for a major consideration of the future role of colleges of education in terms of diversification, mergers and closure. Local government reorganization was due to come into effect on 1 April 1974 and as the process involved polytechnics, universities and further education colleges it was inevitably complex. There were complaints of unnecessary haste, inadequate information and high-handed attitudes on the part of the DES. Nevertheless, most local authorities responded with proposals. By 1975 plans for a considerable reorganization involved closures, mergers with polytechnics and universities, the creation of hybrid institutions and only a minority of colleges remaining as monotechnic colleges of teacher education. By the mid-1970s, however, the economic crisis brought on by the 1973 oil price rise brought about cutbacks in building and a further reduction in the expansion of resources for higher education as a whole. The continuing decline in the birthrate deepened the implications for teacher training. There were 832,000 births in 1967, 784,000 in 1970 and just over 600,000 in 1975. In March 1975 the DES Report on Education No. 82 on teacher supply projected a reduction in the number of teachers in schools in 1981 from the 1972 White Paper target of 510,000 to about 490,000. Teacher training places were cut from 85,000 to 60,000. In the autumn of 1976 there were for the first time since the Second World War significant numbers of newly qualified teachers who could not find jobs. A new DES paper, *Teacher Training in the 1980s*, then proposed a further cut in places to 45,000, with more closures of colleges and polytechnic departments. Another paper, *The Teacher Supply Implications of a Training System of 45,000*, showed stabilization of the teaching force at 440,000 in the 1980s, about 70,000 below the 1972 White Paper prediction. The 'final' decisions were announced in the summer of 1977. Fourteen colleges and one polytechnic were to cease initial teacher training altogether, and for others reductions in capacity were proposed and mergers with other insitutions.

The reorganization exercise had taken five years of seemingly constant moves in a complicated numbers game. The outcome could not have been foreseen in 1972 when the White Paper had implied that only a few small,

badly located colleges would need to close. The shape of teacher training was completely transformed and public sector higher education radically changed. At the end of the 1970s twelve colleges of education had integrated with universities; thirty-seven had amalgamated with polytechnics; twenty-four had merged with colleges of further education; twenty-six had merged and 'diversified' with other colleges of education; twenty-seven were 'free-standing' colleges; twenty-five had closed; and one had ceased initial teacher training and survived as a free-standing college. In 1981 not one of the former colleges of education offered the same pattern of courses as it has in 1972.

The result of the reorganization was inconsistent with the policy of concentrating advanced further education in polytechnics. By the end of the 1970s there was a 'third force' of higher education institutions outside the universities and polytechnics — some concentrating on science and engineering, many more on the arts, social and biological sciences, and a few resembling small universities or polytechnics with a mixture of subjects.

The 'final' reorganization had been based on a 1977 estimate that the demand for teachers in the 1980s would require an annual output of 17,000 new teachers trained in roughly equal proportions through BEd degrees and one-year Postgraduate Certificate of Education (PGCE) courses. However, the birthrate was still falling throughout most of the 1970s and late in 1980 the newly-reconstituted Advisory Committee on the Supply and Education of Teachers (ACSET) received a DES paper indicating that 17,000 was now an over-estimate. New policies on teacher pupil ratios and the continuing fall in projected school-age population suggested a figure of 10,000. The National Union of Teachers (NUT) criticized this assessment for its underlying assumptions on numbers and for its failure to respond to the needs of schools (NUT 1981). In May 1982 ACSET produced projections of pupil numbers for the period 1970-1995. In primary schools in England, pupil numbers which reached a peak in 1973 of over 4.6 million would fall to fewer than 3.4 million by the mid-1980s and then increase somewhat. The number in secondary schools, following this trend several years later, and reaching a peak in 1979 of over 3.8 million, would then fall to fewer than 2.8 million by the start of the 1990s.

In July 1982 the government announced initial teacher training targets for the next three years. There was to be a slight increase in the number of new primary teachers coming through the one-year PGCE route. Secondary school training also favoured that route and cuts were concentrated on the four-year BEd courses on grounds of 'present recruitment to PGCE courses and the need to strengthen subject expertise within the schools.' The PGCE also has the planning advantage that the 'lead time' is much shorter: the decision on how many students to train need be taken only one year in advance. At the same time the government proposed the closure of another fourteen initial teacher training courses and the amalgamation of four others.

The End of Expansion in Universities and Polytechnics

The year 1972 was a significant turning point in higher education generally. The White Paper proposed to increase the number of places in higher education in Great Britain from 463,000 or 15 per cent of the age group to 750,000 or 22 per cent by 1981. This compares with a projection for 1981 of 835,000 made a year earlier in a DES Planning Paper. The White Paper was the first downward revision of an official forecast since Robbins. It was significant also in that it indicated that the students would be shared equally between universities and public sector institutions and not weighted in favour of the universities as Robbins had proposed.

During the 1970s the percentage of school-leavers in England with GCE 'A' level passes fluctuated below 14 per cent, the figure it had reached in 1971, and the number of qualified school-leavers seeking higher education consistently fell short of successive downward revisions of the projections.

Forecasts made throughout the 1970s consisted of downward revisions, based not on falls in the birthrate, which would not affect the demand for higher education until the mid-1980s, but on stagnating demand for places by school-leavers. In 1974 the 1981 target for full-time student places was cut to 650,000. The 1976 Public Expenditure White Paper further reduced the target to 600,000, that of 1977 cut it to 560,000: the same figure as that projected by Robbins fifteen years earlier and subsequently widely held to be conservative.

The stagnation in demand may have been caused in part by a fall in the private 'rate of return' from higher education. For example, the ratio of student grants to the retail price index showed that the students' standard of living fell sharply after the middle 1960s. Further, the inflation and pay policy of the mid-1970s pressed hard on people in the kind of occupations graduates normally enter (particularly white-collar jobs in the public sector), and it looked as though employment prospects were deteriorating (Williams 1973; Pissarides 1982).

The impact of stagnation in demand was not felt evenly in all types of institutions or across all categories of courses. Vocational courses which were believed to give good job prospects tended to flourish while courses in arts, social studies and sciences declined in popularity. Universities managed to maintain a modest rate of growth, but the grade of 'A' level pass required for entry was lowered (Peston 1976; Williams 1981).

Shortfall in demand, the severe economic crisis of 1973/4 and subsequent high levels of inflation led to the collapse of the UGC quinquennial grant system. Grants for the first three years of the 1972/77 quinquennium were broadly as planned, although in 1974-75 there was restriction in supplementation for salary and price increases. In 1975-76 and 1976-77 grants were reassessed and that for 1976-77 was fixed as a cash limit, a procedure which has continued and which now forms the basis of most central government expenditure commitments. In the early years the effect of cash limits was somewhat mitigated by raising the level of subsidized and

non-cash-limited fees paid by students to about 20 per cent of the income of institutions.

Excess capacity created by low demand from home students was partly filled by increasing the number of students from abroad. Overseas students in British higher education rose from 31,000 in 1967-68 to 85,000 in 1979. There was desultory discussion between government and the institutions throughout the 1970s to find ways of dealing with what some saw as the problem of excessive public subsidy of foreigners. A rise in fees in 1977 was followed in 1978 by a government proposal to establish a system of quotas. This was rejected by most universities. In 1980 the government unilaterally decided that overseas students should be charged fees based on its own estimates of the average 'full cost' of the type of course they were attending: in 1980 this was assessed at £2,000 a year for arts courses, £3,000 for science and engineering and £5,000 for medicine, dentistry and veterinary science, making British higher education amongst the most expensive in the world for students from other countries.

FINANCE AND GOVERNMENT OF THE PUBLIC SECTOR

Throughout the post-Robbins period the financing of public sector higher education has been a matter of government concern. In England, local authorities own and maintain most of the institutions. However, because many courses are attended by students from outside the maintaining authorities, most of the finance comes from an advanced further education pool to which local authorities contribute according to a fixed formula and from which they draw according to the number of places they provide. The teacher training pool was established in 1945 and shared costs among local authorities in proportion to their school populations. An advanced further education pool established in 1959 met the cost of advanced further education by a more complicated arrangement related partly to school population and partly to non-domestic rateable value. Following the reorganization of teacher education the two pooling systems were merged in 1975, with 69 per cent of an authority's contribution relating to school population and 31 per cent to its non-domestic rateable value. An authority maintaining a higher education institution meets only a small part of the costs from its own resources. This gives rise to the basic dilemma that ability to commit resources is separated from the obligation to find the resources. In 1977 a working group was set up under the chairmanship of Gordon Oakes, Minister of State for Higher Education, to seek ways of improving the system.

The Working Group on the Management of Higher Education in the Maintained Sector (DES 1978) reviewed criticisms of present arrangements, particularly claims that management responsibility for what was essentially national or regional provision lay locally, that maintaining LEAs did not pay directly for the higher education courses run in their colleges, that there were weaknesses in the pooling formula and that the system of ensuring

co-ordination of advanced further education at regional level was inadequate.

In 1976-77 there were almost 200,000 full-time and sandwich students outside the universities and the running cost of the public sector was about £440 million, of which the polytechnics accounted for some £227 million, other LEA institutions £167 million and voluntary colleges £46 million. The Group saw the key to the management of this huge and complex sector in a new National Body, 'charged with advising on the total resources to be made available for maintained higher education and responsible for effectively determining the allocation of national funds between authorities and institutions. It should be seen as a body exercising considerable authority.' The report favoured partnership between central and local government in the decision-making process, complemented and reinforced by a system of joint finance. It recommended a system under which the major part of the cost would be pooled and met from a fixed sum determined annually, which would be allocated between individual authorities or institutions by the National Body, and a minor part would be met direct by the maintaining authority itself. It was intended that the advice of the new National Body should be backed with finance, enabling it to restrain some authorities and colleges and encourage others. It would operate, in effect, rather like the UGC. The government, of which Oakes was a member, fell before it was able to give legislative effect to the Working Party's recommendations; and the incoming Conservative government had to decide on new financial arrangements for the public sector of higher education.

The government came into office with a general commitment to cut public expenditure. In the Education Act 1980 it 'capped' the advanced further education pool by setting an annual cash limit to the amount of expenditure on local authority higher education.

In July 1981 a consultative paper was issued, *Higher Education in England outside the Universities: Policy, Funding and Management*. It put forward two models. Model A, developed by the Council of Local Education Authorities, was designed to keep local government control, work through the existing pooling arrangements and create what would have been essentially an advisory body representative of various interests to oversee polytechnics and colleges offering advanced courses. Model B, developed by the DES, was designed to work through direct Exchequer funding and remove local authority control from the polytechnics and sixty other major colleges. This polarization brought forth the comment that it was Robbins versus Crosland, still unresolved after twenty years (*THES* 1.1.82).

By this time government financial pressure was making matters urgent. The UGC had shown that the university sector was capable of at least touching the nettle of selective resource allocation in the context of financial stringency, and it was vital for the local authority sector to be able to do

the same. In October 1982 a DES paper, *Future Management of AFE and Distribution of the 1982/83 AFE Pool*, referred to 'resource constraint and the beginning of the decline in the 18-year-old age group forcing changes on the system with the clear risk that they will be largely unco-ordinated, causing damage to national provision as a result.'

In November the DES paper *Arrangements for the Management of Local Authority Higher Education in England* proposed the establishment of a Committee and a Board for Local Authority Higher Education.

The Committee's terms of reference included the academic provision to be made in selected fields and advice to the Secretary of State on the apportionment of the advanced further education pool and the approval of advanced courses. A Board for Local Authority Higher Education consisting of full-time officials would receive instructions from and make recommendations to the Committee. It would have an independent chairman and be responsible for establishing ad hoc groups on particular matters and collaborating with other bodies including the UGC.

The establishment of the interim arrangements in these terms was announced in the House of Commons on 23 December 1981. Similar bodies for Wales and Scotland were also set up a little later. The Secretary of State, Sir Keith Joseph, said in the House that the initiative was 'without prejudice to the government's continuing consideration of longer-term arrangements for the management of higher education in the public sector.' However, by the beginning of 1983 it was apparent that the National Advisory Body for Local Authority Higher Education (NAB) was here to stay in some form or other.

UNIVERSITY CUTS: END OF AN ERA

During this period of radical structural change in the public sector the main concern of those responsible for university policy was resources. In its survey for 1976-77 the UGC showed a 7 per cent fall in the average 'unit of resource' per student in universities since 1971-72. 'This rapid fall, combined with the prospect, based on public expenditure forecasts, of continued deterioration in the following few years and a cash limit system based on assumed inflation rates, caused universities in 1976-77 to continue the stringent economies instituted in earlier years and to restrict commitments to future expenditure' (UGC 1978). From 1977-78 cash-limited grants to universities were announced for a single year with only provisional figures for the following two years. This restored some sort of planning capacity to the universities and brought them into line with the planning cycle of the Public Expenditure Survey Committee. However, the plans which universities were able to make were once more thrown into disarray as the economies of the Labour government gave way to the retrenchment of its successor.

The government's expenditure plans announced in the Public Expenditure White Paper of March 1981 (Cmnd 8175) meant a cut of more than

8 per cent in expenditure on further and higher education over the three financial years to 1983-84 compared with the levels planned in the 1980 Public Expenditure White Paper (Cmnd 7841). In July 1981, in the light of these cuts, the UGC advised all universities of their allocations for the following academic year in a letter which has already passed into university mythology as the notorious July letter. Each university was given target student numbers for 1983-84. Clear quotas for the main subject groups were set out, leading to an overall change in the distribution of students among arts, science and medicine from 50%:41%:9% in 1979-80 to 48%:42%:10% in 1983-84. Specific advice was given separately in letters to individual universities. The cuts were clearly selective, but the criteria were stated only obliquely if at all. Both the cuts and the manner in which they were announced with little possibility of appeal caused considerable resentment in many places. Some universities appeared to be almost completely protected whereas others appeared to have been treated particularly harshly.

The July letter demonstrated the changed nature of university autonomy. An even more striking illustration appeared a year later in July 1982 when the Secretary of State wrote in a letter to the chairman of the UGC:

> 'It might be appropriate for Ministers to take more responsibility than they have hitherto for determining priorities affecting the broad character of the allocation of resources to the universities. The Committee are of course uniquely placed to assess and advise on the needs and capacities of universities both in relation to education and to the research base, but the main thrust of policy for the universities must take due account of policy for higher education as a whole, and of national social and economic policies; and at this level there will be some strategic decisions for which it would be appropriate for Ministers to take explicit responsibility and to answer to Parliament.' (DES 1982)

The UGC as a buffer between universities and government belonged to another age.

Throughout the 1970s it had been possible to maintain with some plausibility that the financial stringency experienced by higher education largely followed the stagnating demand from school-leavers for places. The expenditure plans of the 1981 White Paper made it quite explicit that for at least three years it would become progressively more difficult for well-qualified school-leavers to find a place in higher education. This, along with the changed role of the UGC and the creation of the competitive NAB, symbolized dramatically that both quantitatively and qualitatively the Robbins era had ended.

SURVIVAL AND REVIVAL

The pattern of change in higher education over the past twenty years has not been wholly as envisaged by the Robbins Committee, which in

particular did not foresee or recommend the binary policy or the Open University. Its vision was a traditional university system vastly expanded in number and scope. If Robbins had been implemented in full, nearly 90 per cent of full-time students would now be in or associated with universities. The Committee thought there would be substantial changes in the kinds of courses offered by universities. Robbins himself has often repeated that his Committee had hoped for much greater breadth of study on university degree courses (Robbins 1980).

The real achievement of the Robbins Committee was to make increased public expenditure on higher education politically respectable. The favourable political wind blew for nearly two decades. The Committee was able to raise higher education near to the top of the political agenda because of the sophistication of its statistical analyses, the persuasiveness of its prose and the moral authority of its members. It was a notable achievement, inspired by a vision of society in which social improvement was possible and could be engineered by bringing the greatest amount of education to the greatest number. The vision may have been optimistic, and it certainly led to some self-indulgence. Spokesmen for higher education sometimes appeared to claim a right to unlimited resources for anything they chose to do. However, at a time when few dare to be optimistic about the future, it does no harm to remind ourselves that societies create their own futures. A belief in higher education reflects a belief in the capacity of the human intellect to engineer progress. We cannot know what the future will bring. Many of our hopes may prove to be misconceived. But we can say that future generations will criticize us more for scepticism and reluctance to prepare for the future than for having a vision and for falling down as we stumble towards it.

Despite the traumas of recent years we are unashamedly optimistic. The Robbins vision of good quality higher education for a substantial proportion of the population remains a realistic starting point for the next two decades. But our optimism is tempered by a recognition of the need for reinvigoration and reorientation if the challenges of the 1980s and 1990s are to be met.

The fundamental issue in the early 1960s was strong and increasing pressure of demand for places and a shortage of capacity. The policy problem was to decide how this demand should be met. Robbins, fortified by evidence of shortages in many categories of highly qualified manpower and a widespread belief in the contribution of higher education to economic growth and social equality, had no hesitation in recommending that growth of capacity should keep pace with the growth of demand and that it should be financed out of public funds. Successive Public Expenditure Survey White Papers show clearly that throughout the 1960s and 1970s forecasts of qualified school-leavers seeking higher education largely determined financial provision.

Robbins also gained acceptance for the idea that the traditional high quality of British higher education should be maintained, insofar as it could

be, through continued high levels of expenditure per student. Attention was drawn to the shortness of full-time courses, the high success rates of students who started courses and the good research record of British universities. These were associated with favourable staff/student ratios, excellent libraries and equipment and the relatively high standards of living enjoyed by staff and most students. Britain embarked, therefore, on the 1960s expansion of higher education committed to a known and trusted pattern that had produced good teaching for a small minority and excellent research by a few. A political climate was engendered which prepared the nation to pay for similar teaching for a larger minority and for research by many.

The problem today is different. Demand, in terms of the proportion of suitably qualified school-leavers seeking full-time higher education, has not increased for ten years, and from 1984 onwards the number of school-leavers will decline for twelve years. Belief in higher education as human capital-creating investment has been replaced by a widespread scepticism about the contribution of many kinds of higher education to the directly productive sectors of the economy. The apparently unchanging social composition of the student body has given rise to doubts about the contribution of higher education to social equality. There was in the 1960s a case from both the right and the left of the political spectrum for increased public spending on higher education. The opposite is true of the 1980s.

However, there is a case to be made and those who are responsible for managing higher education organizations should be making it. *Access to Higher Education* (Fulton 1981) summarizes some of the main conclusions of a United States study undertaken for the Carnegie Council on Policy Studies in Higher Education by Howard Bowen (1977). The study attempts to:

> 'enumerate and as far as possible to quantify all the possible benefits which might accrue to individuals and societies as a result of expenditure on higher education. Some of these benefits are highly speculative; some can only be translated into economic terms with great difficulty. But what remains is still a formidable list. ... Aside from specifically job-related skills and knowledge, students can be shown also to gain general skills, capacities and dispositions, which are lasting, and which to a considerable degree vindicate the practice of many employers of recruiting "good" graduates, regardless of course content. ... More unexpected, however, are those outcomes of higher education which are not job-related but still have economic consequences. Bowen's review of research reveals a series of benefits of higher education which have been under-emphasized or ignored even by the noisiest of propagandists for American colleges and universities. As a result of their general level of education (not of health education specifically) American graduates

lead healthier and longer lives. ... As far as the family is concerned, college education appears to lead to "a perceptible narrowing of traditional differences between the sexes", and hence, amongst other effects, to greater labour force participation by women. It leads to later marriage, and to marginally lower divorce rates; and to lower and more rational patterns of fertility in which, it is claimed, college-educated parents "trade quality for quantity in their total outlays for children." Most notably, "one of the most important outcomes of higher education is the favourable effect of parents' education on the intelligence and achievement of children" — even taking into account the effects of correlates of higher education such as higher income levels. It can thus be argued that higher educational investment is subject to a "multiplier" effect over successive generations. ... The result of Bowen's review of research is a long list of the apparent benefits of American higher education to the economy of the United States, concluding that in the period up to 1970 investment in higher education produced a huge net benefit.' (Fulton 1981)

Fulton concludes that 'a similar review is now needed for British higher education.' We agree with him. The absence of reliable research findings has led to crude interpretations of employment statistics, admissions statistics and cost data, both in the popular press and in parliament. One example is the relationship between social class and participation in higher education. This has been an area of considerable policy interest, and it is part of the conventional wisdom that the social class composition of the student body has not changed since Robbins; yet most of these claims are based on the administrative records of the University Central Council for Admissions (UCCA), which depend on one-word descriptions of occupations and apply to universities only.

There has been no comprehensive study of the participation of different social groups to examine the effects of the post-Robbins expansion. Little information is available on the kinds of students who attend different institutions and categories of institutions or who study different subjects. Higher education may not have fully achieved the egalitarian ideals that some of its protagonists hoped for in the early 1960s, but we ought to be able to tell how much worse the situation would be if we had less higher education, or would become if, in response to excess capacity, certain types of institution or course were closed. There has also been little recent study of the efficiency with which resources are used. For example, much of the current restructuring appears to be based on a belief that large departments and institutions offer better value for money than small ones. Yet there is no solid evidence to support this view. We are *not* attempting to pre-judge what the outcome of such research might be. We *are* surprised that organizations claiming to represent the interests of higher education are unable to provide much reliable information

on such matters.

Universities, polytechnics and colleges must have a sense of mission. They have a responsibility to compete for resources and for political priority. They must be more adept in building political and economic alliances than they needed to be during the period when funding was generous, based as it was on the Robbins principle and on rising student demand. Many institutions will struggle for survival in a demanding environment. Managers of the national system must ensure that intellectual vitality, academic integrity and social relevance are not lost in that struggle.

2

BASIC ISSUES

SCOPE

Concern about the long-run future of higher education was brought into focus by the publication in 1978 of the discussion document *Higher Education into the 1990s* (DES 1978). This drew attention to an inevitable decline of over 30 per cent in the number of school-leavers between 1983 and 1996, and invited the higher education community to consider alternative ways of adapting to the trend. Most respondents claimed that higher education could attract a large new clientele from adults and from school-leavers in social groups whose participation rates were at present low. Few ideas were forthcoming, however, about how such new students would be attracted, or whether it was desirable that they should be, or whether public funds should be used to encourage them. In this respect the reactions to the document may be seen as the last of the complacent post-Robbins self-indulgences. The cuts in planned expenditure on higher education proposed in the 1981 Public Expenditure White Paper were precipitated by the government's general economic policy of reducing public spending. However, it should not pass unremarked that they were consistent with one of the strategies proposed in the 1978 discussion document: that is, a pre-emptive strike before smaller age groups reached the age of entry to higher education, so as to limit the probable excess capacity of the late 1980s. It is a general rule of systems management that, if there is a change in rates of growth, the earlier that decisions can be implemented the less violent will the changes in direction of the key operating variables need to be. After adverse criticism for not acting quickly or decisively enough over the reduction in teacher training capacity in the mid-1970s (reflected in, for example, Henke 1978), some senior officials in the DES may well have been sensitive about the possibility of similar criticism during the present decade.

It was in the debate following the 1978 Brown Paper that the Society for Research into Higher Education set up a working party to explore the desirability and feasibility of launching an inquiry into the future of British higher education. In its report in 1980 the working party expressed the view that

> 'The fundamental problem facing post-secondary education during the next two decades is not demography but loss of confidence: loss of confidence "by school-leavers in the private benefits of higher education,

> loss of confidence by politicians in the social benefits and often a loss of confidence by academics in their own sense of purpose. These problems may be exacerbated, but they are not created by public expenditure constraints. ... The Robbins Committee which reported in 1963 took the academic year 1981-82 as the limit of its projections and recommendations. This alone makes it timely to undertake a new comprehensive review of the system. ... Although there is very considerable public discussion about higher education policy, much of it is confused, unsystematic and unrealistic. ...

The Leverhulme Trust agreed to finance a programme of study, which started in May 1981 after the 1981 public expenditure White Paper had initiated the process of reshaping higher education under conditions of severe resource constraint. This book is the last of ten which have resulted from that programme of study. We have not attempted to give detailed solutions to current problems. Our aim has been to explore broader perspectives that must underlie policies during a period of falling numbers of school-leavers. However, we did not think it would be helpful to peer so far into the future that we risked losing touch entirely with current realities. Designing utopias can be interesting but it rarely influences those who make policy or allocate resources.

Our period is one during which the population of 18-year-olds, the age group of the traditional clientele of higher education, will fall by over a third. It is a time during which the nation can, if it wills, increase substantially the proportion of young people and adults who are able to have the experience of higher education without additional expenditure. If the nation does not will a substantial increase in participation rates, many universities, polytechnics and colleges will confront problems of excess capacity over and above the recent cuts of 15 per cent in public expenditure on higher education.

Higher education institutions engage in a wide range of tasks, and there are activities clearly recognizable as higher education in establishments whose main concern is with other branches of education. There is no satisfactory way of drawing sharp boundaries between higher education and other categories of post-compulsory education. All participation in education beyond the minimum school-leaving age is, in some sense, voluntary. In the long run, we believe the links between all branches of post-compulsory education will be seen to be more important than the differences; but that is a prospect for the twenty-first century. Another definition would comprise all education of persons above the age of eighteen on the grounds that eighteeen is the age of legal adulthood. However, the 'post-secondary', like the 'post-compulsory' approach involves areas of adult and continuing education that are far removed from formal higher education — for example, recreational evening classes and adult literacy and numeracy programmes.

An opposite approach is to limit higher education to the activities

of certain institutions: universities, polytechnics and colleges of higher education. The difficulty here is that other establishments, particularly futher education colleges, do offer some courses that are similar to those of universities and polytechnics.

This penumbra of advanced-level courses in institutions whose main activities are of a different kind creates many of the problems in rationalizing public sector higher education, and it would have been a serious omission for us not to have considered them.

The centre of our concern has been formal *courses* that last one year or more and for which a level of prior attainment equivalent to GCE 'A' level (or Scottish Highers) is a *normal* prerequisite for entry. With this as our central core we have been interested in all the other activities of institutions whose *principal* concern is the provision of such courses. Thus we have been able to take into account all the activities of universities, polytechnics and colleges and institutes of higher education, ranging from research into the meaning of life to the letting of premises to holiday-makers, without having to study the whole of the nation's research effort or the whole holiday trade or, more particularly, the whole of further education.

Even this pragmatic definition leaves some anomalies. Agricultural and military colleges are excluded. Continuing education of adults in universities, polytechnics and colleges of higher education is included; exactly similar courses in non-advanced further education colleges are ignored. The large number of courses provided in the private sector by firms for their own employees or by private colleges for commercial gain are also not considered.

In concrete terms we are concerned with some fifty universities and closely related institutions, thirty polytechnics, fourteen Scottish central institutions, sixty-four colleges and institutes of higher education not linked to polytechnics, and six higher education institutions receiving a direct grant from the DES, together with some of the courses in more than 300 colleges of further education which continue to provide some advanced-level courses.

DIVERSITY

Any college, polytechnic or university encompasses a range of activities and, as each institution has a somewhat different range, the variety for the system as a whole is greater than in any single institution. The pattern is kaleidoscopic. Different activities are not combined in the same pattern in all institutions; nor are they the same for all academic staff within any single institution: nor are they constant in any institution at any two points in time. A comprehensive higher education system might consist of a few very large institutions, each aiming to perform the whole range of activities within a single administrative framework or it might have a very large number of small, specialized institutions. While few people would not argue for one or other of these two extremes, one of the strategic choices for the future is whether higher education should move in the

direction of diversification of activity *within* institutions or *between* them. Should there be more or fewer institutions? The potential advantage of large multi-purpose institutions is easy transfer for students between different activities, though the extent to which this is realized in practice is doubtful. The main disadvantages are administrative complexity and the distance between institutions if there are only a few of them. Proximity to a higher education institution facilitates access, especially for adults. Smaller institutions are likely to be more administratively tractable and able to make courses more widely available. However, smaller institutions need to concentrate their efforts over a relatively narrow range of activities and to be part of a co-ordinated system which is flexible enough to allow institutions to evolve and staff and students to move between them. This means for students a proper system of credit transfer; for staff, availability of secondments and part-time appointments; and for the institutions, the opportunity of modifying their range of activities in response to changing circumstances.

Another basic issue is whether the co-ordination of the activities of individual institutions is best achieved by external agencies or whether it should be left to spontaneous interaction between autonomous institutions. Again, it is easy to reject the extremes: total bureaucratic control and a completely free market. It is more difficult to say whether institutions ought to be subject to more external control than at present, or whether there would be net benefits if the pressures of the market were more in evidence.

ACCESS

Access raises other fundamental issues. We have little difficulty in accepting as a point of departure the guiding principle proposed by Fulton (1981) that 'courses of higher education should (continue to) be available to all those who are qualified by attainment to pursue them and who wish to do so.' We are less certain about the terms on which each kind of course should be available. To assert that facilities should be available is not the same as saying they should be paid for exclusively out of public funds. Yet if public funds are not available, access remains a chimera for most people. We would consider it highly unacceptable if some students were able to buy their way on to courses while others with a similar or greater chance of benefiting from them were unable to do so for lack of finance or because impossible barriers stood in their way. Consideration of access cannot be separated from issues of course structure and content, admissions criteria and financial aid for students. Behind these are basic questions of the nature of individual benefit, of social purpose and the reasons why public funds are devoted to higher education.

PUBLIC SERVICE

The public service role of higher education institutions is another basic issue.

The idea of a university providing public services other than teaching and research originated in the United States. The Charter of the University of Virginia, written by Thomas Jefferson, includes among its purposes 'to harmonise and promote the interests of agriculture, manufactures, and commerce, and by well-informed views of political economy, to give a free scope to the public industry.' However, it was the Morrill Act of 1862 establishing land grant institutions which brought the notion of public service to the forefront of United States higher education. Land grant universities have always had a close relationship with the people, industries and governments of their areas. The latest research and knowledge of the state campus is disseminated to local farms, industries and households: special funds are available for this purpose. Many state universities have links with their county and state government agencies, training county officials in public administration, aiding budget or planning officials with the latest techniques and serving as the research arm of state agencies in areas such as transport, social affairs or economic development. The fact that the states provided funds for their own universities to support such activities is important. In Britain, universities have at least since the Second World War taken great pride in being nationally funded institutions independent of local finance.

A selection of proposed mission statements for the University of Maryland (1981) gives an indication of the kind of function which is common for high prestige American universities.

> 'The research work of the agricultural experiment station should be as vigorous as ever, as should the mass education efforts of the co-operative extension service.'
>
> 'Structures should be established to permit smoother consultation and exchange between the state university and the region's leading organizations and corporations. As research universities increasingly become the driving force for improved quality of life and economic development, a closer partnership between government, business and the public research university is essential.'
>
> 'The state university in the 1980s should return to a closer and productive interplay with the schools. In past decades, schools and universities have increasingly gone separate ways. Now new links, interpenetration and exchanges of instructors are needed to improve the quality of preparation of students and to enlighten the universities about the needs of schools, their teachers, and their students.'
>
> 'The state university in the future must pay increasing attention to the quality of life. The quality of health, social services, environment, water, cultural life, recreational facilities and the physical appearance of communities for all the citizens of the state is becoming more important,

> and in such cases as toxic wastes or child abuse, a matter of life and death.'
>
> 'Adult and continuing education will need greater emphasis. This is important both for continued economic vitality and for personal enrichment and intellectual growth.'

Higher education institutions in Britain should have a similar concern with public service. Some of the funds they receive should be given in the expectation that they will be put to this kind of use. Academic staff of universities and other colleges should be able to claim credit for the efforts they put into appropriate participation in national and local industrial and community enterprises. Where staff have prescribed weekly contact hours such activities, up to a reasonable limit, should be allowed to count towards them. Promotion boards should take public service activities into account along with teaching and research performance.

SUMMARY

There are five basic issues which higher education must confront in the next decade. The most pervasive question for institutions and policy makers will be to devise a structure for the system as a whole that is able to respond efficiently to a *declining number of school leavers*. The second issue is *access*. The Robbins principle has been abandoned. We need to consider what should replace it. In subsequent chapters we argue that higher education in Britain should be accessible both to larger numbers of people and to a wider range of the population than has been the case in the past. The third issue is *diversity*. It is our contention that institutions should not try to cover every area of academic or vocational study. Some specialization is likely to produce higher quality work performed more efficiently. The fourth issue concerns *government regulation and funding*. No institution which is primarily funded from the public purse can expect to be completely free. Yet too much central control by the government or its agencies may hamper innovation and institutional development. The fifth fundamental issue concerns the *public service role* of higher education. This requires a much greater concern than in the past with continuing education in its widest sense and with applied research and development.

3

DEMAND AND ACCESS

A policy on access to higher education must answer four questions. Access on what criteria? Access for whom? Access to what? Paid for how? In this chapter we examine the present extent and pattern of participation in higher education in Britain and in some other economically advanced countries, and consider what criteria might govern participation in the future. In the following two chapters we suggest a pattern of course provision which would widen access and propose a scheme of financial support for students consistent with such a pattern.

The participation rate of young people in higher education was the dominant issue confronting the Robbins Committee. Competition for higher education had been growing more intense in the late 1950s. The number of places available was increasing more slowly than the number of school-leavers with appropriate qualifications. The situation would worsen as the postwar bulge reached the age of eighteen in the mid-1960s, and the chance of obtaining higher education was likely to be considerably lower for this cohort than for those that preceded it. However, most of the debate was conceived in what now seem narrow terms. It was about young people attending degree-level courses. There was little consideration of mature students, diferent patterns of provision or alternative entry qualifications.

The 1960s policy agenda was concerned with response to a particular conception of demand — two 'A' levels and a desire to proceed to higher education. The Robbins Committee projected what that demand would be between 1961 and 1981, and by 1981 the projections proved to have been remarkably accurate despite having substantially underestimated the level of demand up to the early 1970s. Many of the assumptions of that period are no longer valid, and new policy questions arise. Should the same criteria continue to apply? Should demand be stimulated by changing policies at various levels to try to bring more people into higher education? Should the pattern of demand be changed? Should student numbers be constrained to enable higher education provision to be based on criteria other than meeting student demand? Should the financial terms be changed on which higher education is made available?

PATTERNS OF PARTICIPATION

The percentage of school-leavers entering higher education nearly doubled in the twenty years between 1960/1 and 1980/1, from 6.9 per cent to 12.5 per

cent. However, as Table I shows, it was not a steady growth. The age participation rate had already doubled by 1970; it reached a peak of 14.2 per cent in 1972/73 and then fell away.

International comparisons of higher education provision can be notoriously misleading, and as Lada Cerych points out in Appendix A British higher education is particularly difficult to place in an international perspective. The boundary between higher education and what in Britain we call further education is not drawn in the same place in all countries. Certainly much of the work of the two-year colleges in the United States and Japan would in Britain be called non-advanced further education. Cerych points out that few other countries make our sharp distinction between full-time and part-time students. Thus many British part-time students probably ought to be included in any international comparison. On the other hand, it is likely to be misleading in the other direction to give all of the 50,000 students on evening-only courses and all of the 60,000 on Open University courses the same weighting as full-time students. Yet the question of how Britain's higher education provision compares with that of other economically developed Western countries is a legitimate one.

Table II attempts to provide a summary answer.

The most critical figure in the table — the participation rate — is unfortunately the most open to different interpretations. The Cerych figure of 16 per cent is based on full-time student numbers only. This concept produces a participation rate for Britain lower than all comparable countries. The alternative DES figure of 31 per cent includes all part-time students on any kind of post-secondary and advanced further education course. This raises the British participation rate above most of its European neighbours but leaves it below the United States, Japan and Sweden. The third estimate is ours based on Farrant (1981) and includes all part-time day students and all Open University students but excludes evening-only students. This leaves Britain lowish on the European league table but within striking distance of all except the USA and Japan.

There is less dispute over the other figures. A higher proportion of young people in Britain obtain a degree than in any other European country, but the figure is well below that for the United States and Japan. When other qualifications are added the British figure remains high but is not quite so prominent. Equivalent qualifications include a variety of professional qualifications. This reveals another interesting grouping of countries. In the United States and Italy virtually all the qualifications awarded are called degrees. In Britain the figure is over 80 per cent; in Japan and other European countries except Holland it is between 60 and 75 per cent; while in Holland it is just over 30 per cent.

Britain can be seen as coming towards one end of a scale in which rigorous pre-entry selection for full-time and part-time day study is accompanied by a high probability of obtaining a degree. At the other end of the scale come the open access countries, where only one in four or fewer of

TABLE 1
Participation rates for young home entrants to higher education 1960-1980: Great Britain

Academic year of entry	18-year-olds (000s)	Young home entrants (000s)	QLR	QPR	APR All	APR Male	APR Female	Excluding teacher-training entrants in E & W with less than 2 'A' levels QPR	APR All	APR Male	APR Female
1960/61	700	48	6.1	111.6	6.9						
1962/63	749	54	7.6	95.4	7.2						
1964/65	848	60	8.1	99.6	8.0						
1966/67	834	87.6	10.3	102.5	10.5	11.7	9.2	85.6	8.8	10.8	6.7
1968/69	763	97.4	12.4	103.1	12.8	14.0	11.4	87.1	10.8	12.9	8.3
1970/71	744	102.6	13.8	100.2	13.8	15.0	12.5	85.8	11.8	14.0	9.3
1972/73	752	106.9	14.6	97.3	14.2	15.1	13.2	83.9	12.3	14.1	10.0
1974/75	776	105.5	14.6	93.3	13.6	14.4	12.8	82.7	12.0	13.5	10.1
1976/77	818	107.2	14.9	87.9	13.1	14.4	11.7	82.4	12.3	13.9	10.1
1978/79	850	105.3	15.1	81.8	12.4	14.0	10.6	80.2	12.1	13.7	10.1
1980/81	896	113.7	14.8	86.0	12.7	14.1	11.2	86.0	12.7	14.1	11.2
1981/82	913	120.7	15.1	87.8	13.2	14.7	11.7	87.8	13.2	14.7	11.7
1982/83	939										

Source DES (1978) (updated with unpublished information from DES)

TABLE II
Indicators of higher education performance circa 1977: various countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Netherlands	12	25	5	15	0.4	1.3	2.4
Britain	14	16 (31)[a] (22)[b]	15	18	1.1	1.3	1.3 (0.9)[c]
Germany	17	19	9	12	0.5	0.7	0.7
France	18	29	8	12	0.4	0.7	0.7
Italy	56	29	9	9	0.2	0.2	0.5
Sweden	66	42	12	18	0.2	0.3	0.8
USA	75	57	25	26	0.3	0.3	2.2
Japan	86	38	20	30	0.2	0.3	0.6

(1) Percentage of school-leavers obtaining minimum effective entry qualifications for degree-level courses
(2) Number of people entering higher education expressed as a percentage of number of persons in most common age group of entry
(3) Number of people obtaining first degrees expressed as a percentage of most frequent age group
(4) Number of people obtaining first degrees and equivalent qualifications as percentage of most frequent age group
(5) (3) ÷ (1)
(6) (4) ÷ (1)
(7) Percentage of Gross National Product devoted to public expenditure on post-secondary education
a, b, c See *Sources*

Sources Columns 1 — 6: Appendix and OECD (1981)
Column 7: UNESCO (1982)
[a] DES, private communication March 1983
[b] From Farrant (1981). But see p. 26 above
[c] Excludes student grants

those who qualify for entry to higher education emerge with a degree. Many of the recommendations of the Robbins Committee which shaped the expansion of British higher education in the 1960s and early 1970s were based on the belief that the winning is more important than the taking part, that the high success rate of entrants to higher education justified restricted access. Some people take the view that this still provides the best guide to policy in the 1980s and 1990s. However, the question of the right balance between one system in which some higher education is available for many and another in which much higher education is available for a few needs

frequent re-examination. In the light of the experience of the past twelve years we believe there is a good case for policies aimed at increasing participation even if this is not accompanied by a proportionate increase in the number of people who emerge with a university degree of the traditional type.

The high success rate of students in British higher education is related in part to the high selectivity of the system. It is also associated with relatively high levels of expenditure. The final column of Table II shows a larger proportion of national income devoted to higher education in Britain than any of the other countries except Holland and the United States. This figure too is subject to some differences of interpretation, arising largely from the relatively generous provision of maintenance grants to students in Britain. If these are excluded entirely the British figure falls to about 0.9, which is little above the European average. However, all European countries provide some subsidy to students — often in the form of subsidized facilities; so again, to deduct the whole of grant expenditure is misleading in the other direction. It is probable that Britain devotes a rather larger share of its national income to higher education than most of its neighbours, but not very much more.

Overall, British higher education caters for rather fewer students at rather greater resource cost than most of its European neighbours with the notable exception of Holland. This generous treatment is associated with favourable staff/student ratios and high success rates at least for full-time students. This has been praised on the grounds of the traditional standards and superior quality of British higher education. It has also been criticized on the grounds that it concentrates resources on a small section of the population at the expense of others who are denied access to any post-secondary education opportunities. It may be a case of the best having been the enemy of the good.

In some ways it is a tribute to British higher education that its basic character has changed little despite its growth. In England, especially, secondary education for many pupils is a series of examination filters out of which the student emerges at eighteen as an embryonic specialist in a narrow range of subjects.* For the socially unrepresentative minority who are successful, this is followed by three or four years of intensive full-time study. The initiation into adulthood of the sons of the wealthy has expanded to cater for the sons and daughters of a slightly broader section of the population. Rationing of places through ability to pay has been replaced by rationing through ability to succeed in a certain type of secondary school examination.

*In Scotland, students' experiences are a little broader, though in recent years not very much so, as an important recent book shows (Gray, McPherson and Raffe 1983).

Farrant (1981) has produced a valuable review of the evidence on changes in the composition of the student body between 1960 and 1980. Table III, derived from his paper, shows that the social group which benefited most from expansion was what may loosely be called the lower middle class — families of skilled non-manual workers such as clerical workers. Their participation rates more than doubled between 1961 and 1977, and the probability of a child from such a family entering higher education rose from 50 per cent of the middle-class average to 80 per cent. The relative probability of higher education for young people from manual workers' families changed little, from 16 per cent of the middle-class average to 19 per cent between 1961 and 1980. Table IV shows, however, that different types of higher education cater for rather different clienteles. Part-time higher education in particular, which is concerned mainly with occupation-related courses, attracts a higher proportion of students from manual working-class backgrounds. However, the overall picture is clear. Expansion of full-time degree courses was associated with some broadening of the range of families which typically send their sons and daughters into higher education, but this shift did not make any significant impact on the barrier which separates white collar from blue collar families.

TABLE III
Age participation rates in higher education by social class 1961/2 and 1977: Great Britain

Registrar General's Class	1961/2	1977
I	45	43
II	19	25
IIIN	10	21
Total 'middle'	19.5	27
IIIM	4	6
IV	2	5
V		3
Total 'working'	3.2	5
ALL	7.5	13

Source Farrant (1981)

TABLE IV
Distribution by social class of students in four types of higher education

Social class[e]	Universities[a]	Polytechnics[b]	Polytechnics[c]	Open University[d]
I	20	12	9	8
II	38	34	23	26
IIIN	12	18	19	13
IIIM	15	8	12	34
IV	4	2	4	13
V	1	16	18	5
Other and not classified	10	10	15	0

a Full-time entrants 1979: UCCA *Statistical Supplement* 1978/9
b Full-time and part-time degree students 1972/73: Whitburn et al. (1975)
c All part-time students 1972/73: Whitburn et al. (1975)
d Part-time students 1971: McIntosh et al. (1976)
e Registrar General's classification on basis of occupation of students' main income-earning parents or guardians at the time of their secondary education

Source Primary source material indicated above. All figures taken from Farrant (1981)

Social class is not the only source of variation in participation rates. There are major regional differences as well. Farrant shows that, after adjusting for the social class composition of the population, university participation rates in Scotland are 26 per cent above the England and Wales average, whereas for the contiguous North and England region they are 21 per cent below.* There are substantial, though less dramatic, disparities in participation rates in other major regions, with Wales in particular having higher-than-predicted participation rates.

The chances of women entering higher education have always been less than those for men. Table 1 shows that their participation did start to catch up during the 1960s but suffered disproportionately following the reduction in teacher training capacity during the 1970s. Overall, in 1980 a woman had about 80 per cent of the chance of a man of entering full-time higher education compared with a relative figure of 90 per cent only three years earlier. Women have, however, made some apparently permanent gains in at least some high prestige courses. The last column of Table 1 shows a big increase in the proportion of women entering courses with a two 'A' level entry requirement. The chance of a woman entering a university course increased from 41 per cent of the male figure in 1956 to 68 per cent in 1980, and there were a number of significant shifts in individual subject areas. For example, in 1956 the probability of a woman undertaking medical education was less than one-third of that of a man; by 1980 the figure was over four-fifths. The reduction of teacher training places in the mid-1970s seems to have pushed some young women to improve their academic performance at school but on balance the net effect was a slight worsening of the relative participation rates of women compared with men.

Table V shows that mature students are far more likely to be found in the public sector than in the universities, apart, of course, from the Open University. Amongst full-time undergraduate entrants, 13 per cent in universities and 37 per cent in the public sector were aged twenty-one or more. This is related largely, but not entirely, to the much higher proportion of part-time entrants to the public sector (53 per cent of entrants compared with 2 per cent in the universities).

We know much less about participation by ethnic minority groups. None of the official statistics gives any indication of the extent of the participation rates. That many ethnic minority groups are poorly represented in all branches of higher education is clear from casual observation. As Alan Little (1981) has written,

> 'The precise numerical under-representation of black students in higher education is easier to observe than to prove. Comprehensive statistical

*A similar difference between Scottish and English participation rates remains if all higher education is included.

TABLE V
Percentages of new students who are aged 25 and over 1976/77

Open University	87
Other universities	6
Full-time advanced further education	12
Part-time advanced further education	43
All students	28

Source Squires (1981)

information on the ethnic backgrounds of school children, college students and teaching staff is not available. Numerous studies, most recently the first report of the Rampton Committee (Rampton Committee 1981), have deplored this.'

Little goes on to quote from a special survey conducted on behalf of the Rampton Committee in six local education authorities. It shows the low proportion of children of West Indian origin entering higher education, 2 per cent, compared with 9 per cent of the Asians and 8 per cent of the other leavers in the six education authorities reviewed. The six authorities chosen for the survey, presumably on the basis of their high concentration of population from ethnic minorities, also had very low overall proportions of school-leavers entering higher education — about 8 per cent compared with about 13 per cent of all school-leavers in England. Thus in the areas concerned, children of Asian origin seem in this respect to suffer about the same educational disadvantage as other children in deprived areas and those from West Indian families have done considerably worse. This evidence is a fragment and is not conclusive. We reproduce it because it is all we were able to find. We must certainly hope that despite all the difficulties some reliable evidence will be collected by the many agencies and charitable foundations that now have an interest in improving the social and economic position of ethnic minority groups. Without evidence it is hard to fully substantiate the case for policies that are almost certainly urgently needed.

DEMOGRAPHIC PROSPECTS

At the heart of the present concern about the future of higher education is the decline in the number of births between 1964 and 1978. We can predict with confidence that the size of the 18-year-old age group will fall by over 30 per cent between 1983 and 1996. Since this follows a ten-year period of stagnating participation rates, there must be fears that the decline

in the age group will be associated with a corresponding decline in the number of students. Table VI illustrates the scale of the problem.

If age participation rates did not increase from 1981 onwards and if mature students, overseas students and postgraduate students kept at their 1981 levels, there would be about 110,000 fewer full-time students by the mid-1990s. This corresponds to the closing of about 16 average-sized British universities or most of the polytechnics. We can give various rationales for raising the age participation rate, and the table shows the effect of various assumptions.

The first of these is based on the fact that the birthrate fall from 1965 to 1978 was concentrated almost entirely in manual working-class families. The proportion of 18-year-olds from middle-class families will therefore rise, and this might be expected to cause some rise in overall participation rates. Farrant (1981) calculates that this could raise participation rates among young people by about 12½ per cent. (DES *Statistical Bulletin* 6/83 (April 1983) makes a similar correction.) This might save about six universities. An additional university would be saved if women's participation rose to equal that of men. If the participation rates for England and Wales rose to those already existing in Scotland a further five or six might be able to continue. Finally, if overall participation rates rose to the present middle-class average there would be a *rise* of over 140,000 in student numbers, allowing for the creation of about twenty average-sized universities.

We could make similar assumptions about the number of mature students, the number of postgraduate students and the number of overseas students, remembering that the *proportionate* changes in these would need to be very much greater in order to counteract the effects of the fall in 18-year-olds.

Table VI highlights several points about the quantitative background to higher education policy in the 1980s and 1990s:

i Relatively small changes in underlying assumptions about participation rates can have large effects on the number of places apparently needed.

ii However, the changes in participation rates would need to be substantial and show a marked reversal of the trend of the 1970s in order to counterbalance the fall in the 18-year-old population.

iii It is unlikely that the kind of changes required in participation rates can occur without substantial changes in the patterns of provision. We have shown that working-class students and older students are more likely to attend part-time courses different from the standard degree pattern, and it is a reasonable inference that significant increases in the number of such students will not be possible without substantial increases in the provision of such courses. It must not be forgotten that three or more part-time students are needed to provide an institution with the same income as a full-time

TABLE VI
Full-time student numbers 1971/2 and 1995/6 on various assumptions: Great Britain

Year	APR	Entrants under the age of 21	Entrants aged 21 and over	Home students		Overseas students	TOTAL STUDENTS
				Postgraduate	First degree and other		
1971/2	14.0	106.1	29.2				463.8
1981/2	13.2	120.8	35.7	42.1	444.3	50.0	542
1995/6	12.9	80	36	42	336	48	426
1995/6	14.4[a]	90	36	42	362	48	453
1995/6	14.7[b]	91	36	42	368	42	458
1995/6	16.3[c]	101	36	42	396	42	486
1995/6	26.9[d]	167	36	42	586	42	676

a Assumes effect of differential social class birthrate 1965-1978
b Assumes women have same participation rate as men in 1981/2
c Assumes England and Wales participation rises to Scottish 1981/2 level
d Assumes working-class participation rises to middle-class levels

student on present resource assumptions. In discussing the prospects for mature students it is also relevant that 70 per cent of mature new entrants to higher education are in their twenties and 40 per cent are under the age of twenty-five. The potential population of mature students of the present type will therefore follow demographic trends similar to the 18-year-old population.

iv Higher education institutions as a whole face, therefore, the challenge of adaptation without growth. They will either have change forced upon them as large-scale excess capacity begins to emerge, or they will adapt in an attempt to attract new types of client.

It is against this Hobson's choice that we make our proposals for a radical reform of British higher education. We believe that our proposals are academically and socially desirable in themselves. But even if they were not, it would be in the interests of most people in higher education to take them seriously. Obviously a few instititions could survive and prosper by continuing to offer the traditional pattern of courses, but it would be a risky strategy for the rest.

IMPROVING ACCESSIBILITY

Many of the changes which would reduce inequality of participation must be initiated in the early years of secondary education. Young people with a sense of academic failure in their early teens are unlikely to prolong their education. Our concern, however, is with measures that can be taken by or on behalf of higher education institutions. In this section we consider proposals concerned directly with access that were made by Fulton (1981) in *Access to Higher Education*.

In the past the 'A' or 'H' level requirement for entry, including the specification of grades, has been essentially a rationing device where many institutions have had more applicants than places. How good a predictor 'A' level grades are for later performance has been frequently questioned. In some subjects, such as mathematics and modern languages, the correlation between 'A' level success and degree performance is reasonably high. In others, particularly those started for the first time in higher education, such as many social sciences, it is low.* In subjects where it is low there is a

*Entwistle (1973) shows the following correlation coefficients (R^2) between 'A' level scores and degree performance from a sample of several hundred students in the 1960s: social science 0.12; languages 0.19; humanities 0.27; pure science 0.33; mathematics 0.50; applied science 0.53. This is another area of considerable significance for policy where it is remarkable that no major national study has been undertaken in recent years.

good case for relying less heavily on 'A' levels as a basis for admitting students. Even where it is high, the correlation is far from perfect and it may be desirable to insist rather less on these qualifications than at present. There is a case for some positive discrimination by admitting students with different kinds of educational background.

A national examination at eighteen provides a useful measure of student attainment for employers and higher educaiton institutions. It should continue to be *one* criterion for admission to higher education. It should not, however, be the only one. We agree with Fulton that institutions should aim to admit a significant proportion of their students on other criteria. Fulton and Gordon (1979) show that many young people potentially able to benefit from higher education still leave school at the age of sixteen, particularly amongst those from manual working-class backgrounds. They claim that means-tested educational maintenance allowances should be available and the full grant should be at least as generous as the grants for young people who leave school. However, whatever reforms are introduced at the secondary school level, it seems likely that there will still be talented young people who leave school at the earliest opportunity. Some may get technical or other qualifications in further education. Others may have only CSEs and 'O' levels but have gained appropriate work experience. These qualifications should be considered as widely acceptable alternatives to 'A' levels and not just for mature students. The rapidly growing network of training and educational opportunities for early school-leavers makes such a flexible approach to higher education entry even more desirable.

People who wish to return to education later in life should be given greater opportunities. They should be encouraged not only because technological change leads to the need for education and training later in life or because, on grounds of equity, people who did not have the opportunity of higher education earlier should be given it later. They should also be encouraged because mature students can bring to a university course much useful experience and insight which can be shared with younger students and staff to the benefit of everyone. One way of encouraging them is to make the barriers of entry less formidable: making many more courses and parts of courses available on a part-time basis and taking into account experience at work, other qualifications and performance on aptitude tests. One beneficial result of the population decline is that higher education institutions are likely to do more to market their courses than they have done in the past. The principles and practice of 'outreach' used in adult education could well be extended and should apply to young people as well as older potential students. For example, representatives of universities, polytechnics and colleges should visit further education colleges, trade union colleges, evening institutes and centres for ethnic minority groups to inform as many people as possible what is available and to encourage them to apply. Universities responded remarkably to the changed position with regard to overseas student fees. While not endorsing a

policy which was applied far too sharply, the notion of an active recruitment policy is one that we think all institutions should be encouraged to adopt.

The second major change that is needed is in the types of courses which are provided. In the next chapter we propose a radical reform of undergraduate courses which we believe will attract a wider range of students. It will also be necessary to make more provision for remedial or access courses. These should, by providing advice on study skills, the use of libraries, essay writing and oral debate and discussion, prepare the student who has not obtained academic qualifications. Courses of this kind exist in further education: for example, the successful Open College Federation of the North West is based on the principle. Such schemes need to be expanded and should be available for all or parts of degree courses as well as for preliminary study. If we are to encourage more ethnic minority group students, we should be more imaginative in putting on courses which are of special interest to them, as has happened in the United States (see Trow 1981). The special access scheme for young people from disadvantaged ethnic minority groups should be expanded.

Opportunities for credit transfer should be extended. A great deal has been talked about it in recent years but little has been done. British higher education institutions have been hesitant to accept students who have completed a part of their course elsewhere. The diversity of course structures and narrow interpretations of institutional autonomy have made progress difficult. For adult students it is particularly important that there be more flexibility. Many will be married and will have spouses whose need for occupational mobility will take precedence over their husbands' or wives' courses. Some may need to interrupt their studies for financial or other reasons. Others may find the possibility of taking a degree in two or three parts with gaps in between less daunting than the present system. There are sometimes academic advantages if students are able to obtain course credits in institutions which have strengths in particular areas. However, without encouragement from the centre, reform seems unlikely. The Toyne Report recommended a national information service on credit transfer possibilities (Toyne 1979). We hope that the present pilot scheme will lead rapidly to a much greater nationwide system of credit transfer. It will obviously require a considerable measure of academic regulation. We agree with Wagner (1982) that it will probably be necessary to use financial levers, such as a higher weighting for grant purposes of new entrants to a particular institution, to encourage universities in particular to accept transfer students.

Fulton and Gordon (1979) found that 36 per cent of the 'highly able' sons of manual workers intended to enter higher education, compared with nearly double the number (70 per cent) in the same ability category for middle-class boys. A failure to increase the participation rate means that socially marginal students are less likely to find places in higher education: for example those from the state schools, where there is no long tradition

of providing an academic sixth form education and sending pupils on to higher education; and older students, particularly those without conventional qualifications. Many institutions, particularly the universities, are likely to make safe rather than risky choices: young candidates with high 'A' level grades who come from 'good' schools. A climate of stagnation or contraction does not encourage experiment or innovation. In turn, this means that new courses which might attract different kinds of candidates are unlikely to be introduced. Schools will be encouraged to concentrate even more on conventional academic 'A' level courses. Demand from groups who are potentially able to benefit but who are not attracted by the present pattern of course provision will remain depressed.

The decline in the number of 18-year-olds in the next decade or so provides an excellent opportunity to introduce reforms previously impossible because of pressure of numbers. Access should be broadened on the grounds that many more people could successfully pursue courses and also that there will be long-term social and economic benefits for society as a whole. More effort should be made to recruit students from working-class backgrounds, from ethnic minorities, and from among women and older people. We support Fulton's (1981) proposal that 25 per cent of students should be selected on criteria other than 'A' levels and that a national system of credit transfer should be introduced.

The present constraint on participation risks general adverse consequences. Even during the depression of the early 1980s rates of unemployment are considerably lower for graduates than for less highly educated people. It should certainly not be regarded as undesirable for employers to recruit graduates for jobs which earlier would have gone to less well qualified people. Better educated employees *ought* to have higher analytical skills, to communicate better, to have more imagination and creativity and to be more capable of innovation. There is little cause for complacency about the state of British society and the British economy. The case for a higher education linked to the needs of a buoyant economy and a healthy society remains strong. Whilst the market for graduates is stagnating at present, the demand for qualified manpower will start growing again as the recession recedes. Because the 18-to-21-year-old age group will decline sharply in the next decade, any increase in the amount of graduate employment would require substantial increases in participation rates in higher education.

The value of higher education is not, however, narrowly economic. We have referred to Bowen's survey of some of the broader social benefits in the United States. It is too easy in a period of economic depression, when political attention is dominated by the problem of creating material prosperity, to neglect the cultural and purely intellectual benefits to individuals and to society. Certainly higher education institutions must be partly instrumental. They exist to serve society. But a significant part of that service is the enrichment of intellectual, cultural and moral life. One

of the responsibilities of the higher education system is to spread its messages as widely as possible. British higher education, with its concentration on a narrow range of courses that appeal to a narrow segment of the population, is singularly failing to do this.

SUMMARY

In the twenty years since the publication of the Robbins Report, ten years of rapid expansion have been followed by ten years of stagnation in the proportions of school-leavers starting on courses of higher education. There has been little change in disparities in participation rates between main social groups and between different regions of the country. What has been added is the emerging problem of disparities by ethnic and cultural origin, but much more research is needed into this issue. Discrepancies in participation between men and women lessened up to the mid-1970s but after that the overall gap began to widen again, although women's gains in high-prestige subjects such as medicine appear to have been maintained.

Rises in participation rates in the late 1980s will need to be substantial if the forthcoming fall in the number of school-leavers is to be counter-balanced. It is unlikely that these rises will occur without substantial changes in the patterns of course provision.

We hope that the 'A' level examination will be reformed so that sixth formers are encouraged to take a broader range of subjects, but consider that an examination at the age of seventeen or eighteen should continue to be the normal qualification for entry to higher education. However, higher education institutions should be more flexible in the entry qualifications they accept and each college, polytechnic and university should establish a quota of places to be filled by students without traditional entry qualifications. Higher education should be active in marketing its courses and should extend opportunities for students to transfer their credits from one institution to another.

4

DEGREES OF DIVERSITY

AN ENGLISH DISEASE

Three-quarters of the students entering British universities register for a specialized degree in a single subject. In preparing themselves to qualify for entry to higher education very few English students take more than three subjects, and fewer than one-quarter take a range of subjects beyond the age of sixteen which includes both a 'science' and an 'arts' or 'social science' subject. Excessive and premature specialization is the curse of English upper secondary and higher education. The situation has changed little since the mid-1960s. Robbins shows that in 1963/4 68 per cent of students in their final year were doing single-subject Honours degrees and a further 6 per cent were doing single-subject Pass degrees. In Scotland specialization is rather less, though in an important recent book Gray and others (1983) show that the range of subjects taken by individual students in the Scottish Higher School Certificate has narrowed considerably. Scotland can no longer be exempted entirely from strictures on premature specialization.

There have been many attempts during the past twenty years to reduce the amount of specialization on 'A' level courses, and all have foundered essentially on the rock of university entry requirements. In most universities students are admitted to departments, and departments seek to recruit those who appear to have the greatest chance of success in the department's area of specialization. Public sector institutions have been less rigid but have been influenced by the high prestige of many single-subject university departments. We believe the time has come when only a substantial reform of the basic structure of undergraduate courses can reverse the growing pressures for such intensive early specialization. The growth of knowledge and its inevitable compartmentalization need not and should not mean that all highly educated people are acquainted with only one narrow area of knowledge.

Criticism of the specialized nature of sixth form and undergraduate education is not new. The Robbins Committee said that it had received much evidence critical of first degrees on the grounds of over specialization. In their study of British academics in the 1960s Halsey and Trow found that well over half of their sample of university teachers considered it a valid criticism of English universities that they over-emphasized the single-subject Honours degree (Halsey and Trow 1971). Robbins claimed that the criticism fell under two main headings: courses were overloaded and courses were unsuitable for many students.

> 'There are unquestionably young men and women for whom study that involves penetration in depth is naturally appropriate. They are eager to get to the heart of the subject and to develop powers of rigorous analysis and observation within its ambit. ... Nevertheless, there is another sort of mind that at the first-degree stage is likely to be more at home in broader fields studied to more moderate depth. There is evidence that many young people would prefer such studies, were they assured that broader courses carried no stigma of inferior status. Many students would like to enlarge their knowledge of a number of subjects, and feel constricted by the horizons of courses specializing in depth.' (Robbins 1963)

Robbins himself has returned to this theme many times, most recently in his revisiting of higher education (Robbins 1980): 'We have simply got to realise that as regards specialisation at the later stages of schooling we are completely out of step with the rest of free societies ... and run the acute danger of turning out a race of citizens virtually uncomprehending each other. ...'. He refers to the 'iniquitous habit of ultra specialization at tender ages' and proposes that 'extreme specialization suitable for preparation for high research scholarship or professional training should be reserved for the graduate schools.' We entirely agree with these sentiments.

The Robbins Report took the view that many students do not know with any certainty what they want to do when they enter university or what career they want to follow later. The Committee's own survey showed that about half their sample of undergraduates had a fairly definite idea when they started at university, but by the time they left more than a third had changed their minds. Despite the swing towards vocational studies in the 1970s, the emergence of unemployment amongst new graduates makes it even less likely that there will be a close relationship for the majority of students between the courses they follow and the occupations they take up. Certainly few of the graduates of the 1980s will become specialized teachers in upper secondary or higher education.

The Robbins Committee hoped that its recommendations for less specialized first degrees would be implemented in a context where more students than in the past could go on to specialized study at the postgradate level. It also attempted to provide reassurance for those university teachers concerned about the dilution of standards in their own areas by admitting the possibility of an extra year being added where there were what it called 'sound educational reasons'. However, the Committee also pointed out that longer courses do not necessarily produce a higher standard. In spite of the Robbins Committee aspirations and the growth of taught specialized Masters courses, the specialized concentrated first degree has flourished. It does have intrinsic merits; it is centred on the idea of an academic discipline: a coherent body of knowledge or range of subject matter that 'holds together' in proven ways as well as providing recognized methods of analysis. If

successful, it trains the student in a particular way of thinking and provides him or her with an epistemology that has been legitimated by the wider intellectual community. It discourages superficiality and produces graduates with considerable knowledge and depth of understanding in their chosen fields. From another point of view an educational qualification is a signal to the outside world of the possession of a certain kind of ability. When they recruit graduates employers may have reason to be cautious in the judgements they make. Known qualifications, even if not strictly relevant to the job to be performed, have an advantage over those that are new and unknown.* The specialized Honours degree system has facilitated the implementation of the student award scheme, which is much easier if courses are relatively short and concentrated in single administrative units.

Reform of undergraduate degree courses is therefore not without risk. Given their own specialization, some lecturers may feel ill-prepared for an integrated interdisciplinary approach to undergraduate teaching. However, as Cotterel has argued:

> '... the list of great men in the history of scholarship who have refused to limit their vision within the confines of the disciplinary boundaries of their era is sufficiently impressive to reassure modern teachers and researchers that, despite all the problems involved in inter-disciplinarity, it has a sound and respectable history as one of the eminently productive and innovatory varieties of intellectual non-conformity.' (Cotterel 1979)

There are certainly dangers if students are allowed, magpie-like, to pick up course credits from all over the place. Unrestricted student choice should not be the guiding principle in reducing specialization. Like Robbins twenty years ago, we believe that properly integrated degree schemes are needed in which students are able to experience the methods of thought of several disciplinary approaches. There is a place for joint teaching and team teaching in which two or more academics collaborate to teach properly planned interdisciplinary courses. There is no reason why everything in an undergraduate curriculum should be taught in great depth. Breadth and the ability to integrate different ideas have intellectual as well as practical value. There is reason to believe that graduates of English universities emerge with an over-narrow intellectual world view, which means that they often fail to perceive the relationships between different kinds of

*According to Bragg, nearly half the vacancies circulated by the University and Polytechnics Appointments Services do not specify the subject in which the candidate should have graduated (Bragg 1980). CBI evidence to the Select Committee on Education also claimed that employers look for the right person more than the right qualifications (HC 1981).

knowledge, which, in turn, means that their intellectual creativity is blunted. This may not be a serious problem for the highest academic fliers, but it is a serious danger for the majority of students. Their attention should be drawn to the way subjects interact and draw on each other, and to the way more than one discipline may be applied to a practical problem or policy issue.

There would also be practical advantages to less specialized degree schemes. There are many potential students who do not at present enter higher education but who could benefit from it. Although there is little evidence, we suspect that a substantial proportion of these would find a rather broader range of studies more appropriate to their needs and interests. It is idle to attribute single causes to the higher participation rates in Scotland, but the early years of study are more general in that country than in England. Moreover, less specialized initial courses, particularly if accompanied by an organized system of credit transfer, could be more widely available and thus reduce barriers to access. During the next fifteen years jobs which at present require highly specialized first-degree qualifications, such as university teaching and research or upper secondary school teaching, are going to be hard to find. The minority of students likely to enter occupations which do demand such qualifications should obtain them in postgraduate study. In most cases their specialist studies are likely to benefit from being based on a rather wider vision of the world.

A NEW TREATMENT

Specialization is only one aspect of the extreme rigidity of higher education in this country. In universities students are offered effectively a three or four-year Honours degree or nothing. In the public sector there is a rather wider range but there, too, the Honours degree is dominant, particularly for full-time students. It seems to us regrettable that higher education institutions in effect say to most students: 'We can offer you nothing of any value in less than three years of full-time study.' Obviously some subjects do require three years of study before they can be said to have been mastered; some require considerably more: medicine for example and some branches of engineering. However, it is not clear that this is true of all subjects; and it is not clear that all students need or wish to reach the same level of mastery in any subject. Moreover, it is not clear even in many vocational subjects, that narrow specialization from the age of sixteen onwards is the best preparation for the kind of work that most people will actually do. Some knowledge of social issues for doctors, some ability to assess quantitative arguments for lawyers, some ability to communicate their ideas to non-specialists for engineers, all might justify some sacrifice of highly specialized knowledge. Obviously, any reform of curricula in any particular subject area must be largely a matter for those with experience and knowledge in that area. It may well be in some areas that specialists would be able to demonstrate that nothing useful could be learned in

courses less intensive than those taken at present. However, the onus of proof should be on those who claim that only one course structure is viable.

We believe that the problem of excessive premature specialization and the impotence of all attempts to mitigate it has reached a stage where nothing short of radical reform of undergraduate course structures can bring about worthwhile change. It is for this reason, above all, that we propose the establishment of a system not just of less specialized courses but of shorter initial courses, followed by further specialized study for those who wish to obtain specialist professional or academic qualifications.

In the United States undergraduate education is divided between a lower and an upper division, each lasting two years. Lower division courses are provided in a variety of different institutions: two-year colleges, four-year colleges which also provide upper division courses, and universities which provide upper division and postgraduate courses. Those who start in a two-year college, many of whom are mature students taking courses on a part-time basis, may transfer to a four-year college or university for their final two years if they wish. Those students who wish to end their studies afte two years obtain an Associate Bachelor's (AB) degree provided they have accumulated enough credits. High participation rates are made easier because of the wide dispersion of two-year colleges around the country, which makes part-time study easier. Japan, which has high participation rates, has recently moved to a nationwide system of two-year lower division courses. France also has had a two-year basic higher education course for many years.

There have been many proposals for two-year basic degree courses since the idea was first put forward by Pippard (1969). Lord Robbins (1980) has gone some way along this road and other proposals are made by Wagner (1982) and Cane (1982). The National Advisory Body for Public Sector Higher Education is known to be considering two-year initial courses in some of the colleges for which it is responsible. Fowler argues that the colleges of higher education should have become two-year institutions rather than 'mini-universities offering the same range of courses, without the same academic expertise,' and claims that they could still become two-year colleges 'within a system which, through credit transfer, permits the progression of their students to other institutions and higher qualifications.' Charles Carter, former vice-chancellor of Lancaster University, also favours the provision in some institutions of two-year courses. He considers that three-year degrees should be limited to certain designated institutions. The weakness of this proposal is summed up by Carter's own explanation for the existing pattern of courses: '...diplomas and certificates below degree level carry no equivalent prestige: some are, indeed, liable to be interpreted as evidence of failure in a degree' (Carter 1979).

The Diploma of Higher Education introduced in 1972 was an attempt to increase the range of courses available. It failed largely because of rigid

entry requirements (the insistence on two 'A' levels) and the regulations allowing three-year mandatory grants for all students. Why should students take a two-year diploma if they could get money on the same terms for a three-year degree course which carried higher prestige? As Fowler bluntly puts it, the entry requirements made sure it was 'killed stone dead, except as a drop-out course for those who could not succeed on a degree whatever their initial qualifications' (Fowler 1982).

We believe the best case and the most viable proposals are those put forward by Stephen Bragg, former vice-chancellor of Brunel Uiversity. He proposes a structure based on universal two-year degrees which he advocates on grounds of access, cost, flexibility, and efficiency with regard to future employment (Bragg 1980). The two-year *degree* as the basic initial qualification in higher education is one way of cutting through the difficulties in implementing a radical reform of the content of both the initial years of higher education and the sixth form curricula which precede it. We think a strong case has been made by academics of widely different background and experience and that the time has come for two-year initial courses of study to replace the three-year Honours degree as the linchpin of the system. If a two-year qualification were called a degree, it would avoid invidious distinctions between diplomas and degrees. Obviously, a two-year degree, especially if it covers a broader range of studies, would not bring students up to the level of specialized knowledge at present achieved in the three-year degree. It will undoubtedly be argued by some interest groups, therefore, that the proposal represents a lowering of academic standards. It is this concern which has prevented any of the earlier proposals for two-year basic higher education courses getting beyond the drawing board. We do not accept this as a valid reason for rejecting movement in the direction of shorter, less specialized basic courses.

If two-year and three-year degrees existed side by side at equal cost to students there would indeed be few takers for the former. Wagner believes that the problem might be overcome by following the pattern of the University of Buckingham and lengthening the academic year, requiring students to study in the summer vacation. He suggests that the ninety weeks of term time, which is the standard length for a three-year degree, could be compressed into two years. We have doubts about the feasibility of the scheme, even if accompanied by more generous study and research leave for teachers in higher education. We do not see which of the problems of specialization, access or cost it would solve. It would not be likely to stimulate any radical rethinking of undergraduate curricula since effort would be concentrated on squeezing existing courses into a shorter period. If staff were given extra periods of sabbatical leave in order to maintain their opportunities for research and scholarship, savings in costs would be limited, especially as buildings and facilities would not be available for vacation courses and conferences. The argument about maturation, that is, time to enable students to reflect on their studies rather than engage

in intensive rote learning, also seems to us to have some force. Thus, although we see some merit in Wagner's proposal, we feel it is doubtful whether even in the long run it could come about.

One qualification, previously common, which has fallen into disuse in England in recent decades, except in medical schools and in the Open University, is the Pass degree. It remains the basic qualification in Scotland.* A two-year Pass degree as the standard initial qualification throughout English post-secondary education would meet most of the objections to earlier proposals of this type The normal entry requirements for 18-year-olds could be 'A' levels or 'H' levels, though students who had acquired other kinds of qualifications in further education should also be eligible. For older students there should be a variety of other qualifications, including work experience, supported by interview or aptitude tests.

A national system of two-year Pass degrees covering a rather broader curriculum than at present could, and we think would, substantially increase access at a relatively low cost. Many courses could be locally based. There would be no need for students to leave home to attend broadly-based courses that were similar in many institutions throughout the country. Many colleges of higher education and further education would, we imagine, concentrate mainly on courses for the Pass degree but might also provide further vocational training of various kinds. Universities and polytechnics would offer the two-year Pass degrees, but would be expected also to admit students from other institutions to appropriate higher-level courses on equal terms with their own students.

A very important aspect of any proposal for shortening and broadening initial courses of study is the extent of opportunity they would make available for students upon completion. A Pass degree would need to be a credential that had intrinsic value and was recognized as such by employers; it would also need to be a qualification for entry to a variety of subsequent courses both academic and vocational. While in general we would expect the Pass degree to be broadly based in a particular disciplinary area, it would sometimes undoubtedly be linked to particular occupations. Advanced BTEC qualifications could well be regarded as the equivalent of the Pass degree in the vocational areas they cover. Such occupation-based degrees would either lead directly into senior technician categories of employment in the areas concerned or provide the basis for further education up to professional or technologist level. Those who took the broader general degree

*Students normally enter Scottish universities a year younger than in England so the first year of university study corresponds in many ways to the second year of the English sixth form. The proposals of this chapter would not directly affect the Scottish first degree though it is to be hoped that the debate about the content of undergraduate courses will take place in Scotland also.

route would need to have opportunities both to top up their degree with a further year of intensive specialized study and turn it into an Honours degree, and to undertake occupation-related one-year Diploma and two-year Masters level courses.

One suggested difficulty with such a scheme is that students transferring to higher level courses would have a rather short period in which to settle down and acquire the necessary specialist knowledge to transform their Pass degree into a higher level degree. We are not convinced. Many students make such transfer to one-year Masters courses already. In both Scotland and Australia the Honours year is obtained after one year of further study beyond the Pass degree. Certainly transfer would call for some careful co-ordination and collaboration between institutions. We would expect students who are intending to transfer to have some contact with their new institution before the end of their Pass degree courses. They could, for example, attend summer schools and be given reading lists and other work to do over the long vacation. We envisage entry to Honours courses as being aimed particularly at students who have shown considerable academic ability and commitment.

The initial courses can usefully be followed by periods of study which combine vocational preparation with practical work, thus integrating academic study with the development of practical skills. We find Bragg's ideas very useful:

> 'Many of those coming out will be less differentiated, having only had two years of general education. Their next year or years of training can be directly related to their first employment. Alternatively, an employer may consider it to the advantage of both the employee and the business that further professional training be delayed until the employee has some practical experience and his interests and aptitudes are clearer. This would result in an alternative form of thick sandwich course: that is, two years of general studies comparable to those of the present-day degree course, followed by at least the equivalent of one year further study intercalated with a year or year's practical experience and related to a particular profession. Furthermore, it may be to the advantage of the employee or his employer that he be retrained on another vocational course at a later date. This would be much simpler to arrange with two-year modules than the present three- to four-year degree course.' (Bragg 1980)

Postgraduate diplomas and Masters level courses would normally be linked to particular areas of employment. Both would, we envisage, normally be terminal qualifications: but many postgraduate diplomas would also be able to be used as the first year of a Masters course. Similarly, students who wished to use their Masters degree as a qualification for registering for an occupation-related degree at the level of doctorate would be able to do so.

Students taking the Honours degree route would subsequently be able to register for Masters and doctorate-level courses. We consider research training in more detail in Chapter 8. Here we simply note that there is a strong case for a research degree that indicates a year of intensive research training after an Honours degree followed by another degree that indicates successful completion of at least one year's independent research.

DIAGRAM 1
A model for the structure of courses in higher education

		Full-time years
BA/BSc Pass		1
		2
BA/BSc Hons.	Postgraduate diploma	3
(1)	(2)	4
(3)	(4)	5

(1) MA/MSc linked to research training
(2) Occupation-related Masters-level courses
(3) PhD
(4) Occupation-related doctorate qualification

Diagram 1 shows schematically the pattern of courses we envisage. We put the model forward tentatively. It does not aim to cover every detail. Nor should it be considered the only possible structure into which everything must fit, any more than the present three-year Honours degree covers every kind of course. One of the aims of the proposal is to introduce a greater amount of flexibility into degree schemes, so any structure based on these ideas would obviously have to be flexible enough to accommodate special requirements in particular areas of study. What we have shown, we hope, is a viable pattern of degree courses based on a core of two years of study — or part-time equivalent — rather than the three years of full-time study which is at the heart of the present system. Those who claim they can do nothing useful for students in two years should show why this is the case.

In general, courses should be available to both full-time and part-time students; and some institutions would, we think, offer the initial courses

entirely in the form of a part-time option. Qualifications obtained in lower-level courses should have a validity of several years in qualifying students for entry to the next level of course. However, there may be a case for requiring that the Honours year should normally follow within a few years the acquisition of a Pass degree. Some students will wish to transfer from one stage to the next within the same institution. Others will wish to transfer to a new institution. This should be as flexible as possible. Those universities and polytechnics which offer Honours year and Masters and PhD courses should be expected to provide a significant proportion of their places for Pass degree graduates from other institutions.

It is impossible to predict the overall numbers of students at each stage nor would it be very helpful to make illustrative estimates since we can make the system apparently achieve whatever we want by selecting appropriate guesses. However, one aim of the proposed structure is to broaden access for the same expenditure of public funds, by having more undergraduate students on general courses and increasing the proportion of locally based part-time students in the first two years of study. The average unit costs allowed by funding bodies for students in the first two years of their courses could be lower than those for later years, on the grounds that these more broadly based courses should attract larger numbers of students. Many students at present take at least four years to graduate and obtain their vocational training. We think it is unlikely that our proposals would increase the total cost of producing qualified manpower and the extent of higher costs would be less than proportionate to the increases in participation rates.

SUMMARY

In this chapter we have suggested that undergraduate education in Britain, and in England in particular, is too specialized. It forces choices from students before they are ready to make them, it puts off some prospective students from entering higher education, and it turns out graduates whose education has been undesirably narrow in respect to both their personal development and their future employment. We have argued that the current first degree is too narrow, too rigid and too long for many students and that greater flexibility could be introduced by providing a broadly based two-year first degree, at which point some students would terminate their studies. This, we recommend, should be followed by either a one-year intensive Honours course or occupation-related postgraduate diplomas and Masters degrees, which in many cases would be combined with work experience. Those who obtain an Honours degree and, in certain circumstances, those who obtain degrees at Masters level should have the right to proceed to research training in appropriate disciplines. All courses should be available as full-time and part-time options.

5

GRANTS AND LOANS

THE PRESENT SYSTEM

The provision of means-tested maintenance grants for all undergraduates taking full-time degree level courses is unique to Britain. The present system dates from 1962, when the recommendations of the Anderson Committee Report (1960) came into effect. Prior to this the 1944 Education Act had given local education authorities discretionary powers to grant scholarships or other allowances to any student over the minimum school-leaving age, 'for the purpose of enabling pupils to take advantage without hardship to themselves or their parents, of any educational facilities available to them.' By 1960 most LEAs were providing school-leavers going on to higher education with grants as a matter of course. It was the Anderson Committee, however, that established the principle that such grants should be available as of right to British residents with two 'A' level or three 'H' level passes starting a first degree.

The principle was based on the criterion of need, thus differing from the scholarship principle, which gives awards according to performance on a competitive basis. As long as a student had secured a place in higher education and had the minimum entry qualifications he or she would qualify for a grant related to parental income. The needs principle was endorsed by the Robbins Committee, which pointed with pride to the fact that 'Apart from the Soviet Union, none of the countries visited makes provision from public funds for assisting as high a proportion of students as Great Britain' (Robbins 1963). Whilst many Western countries followed Britain in introducing grants during the 1960s, none of them did it on the same scale: their coverage was not universal and the proportion of individual student costs covered was much lower. The British system of grants remains the envy of students in many other countries. No qualified young person who wishes to enter higher education need be prevented from doing so simply because of family financial circumstances. It was seen as a victory for advocates of greater equality of opportunity. It probably helped to stimulate the effective demand which fuelled the post-Robbins expansion and it certainly influenced the orientation and structure of the courses offered. It also helped to ensure the influx of lower middle-class students we noted in Chapter Three.

There are two types of grants for students below first-degree level: mandatory awards, which all local education authorities are required to pay to eligible students attending 'designated courses'; and discretionary awards,

which may be given at the discretion of individual LEAs to students who are not eligible for mandatory awards or who are taking non-designated courses. Rate support grant arrangements allow LEAs reimbursement of 90 per cent of their expenditure on mandatory awards, while discretionary awards must be paid for out of overall grant. Discretionary awards are thus particularly vulnerable if LEAs suffer financial stringency.

Students are eligible for mandatory awards provided they have been ordinarily resident in the UK throughout the three years preceding the first year of their course of higher education and provided they have not previously attended a course of advanced further education for more than two years.* This means that LEAs are not obliged to give grants to students who change their minds about the courses they wish to follow or who wish to change their careers after completing some higher education. Normally, students who abandon a course before completion forfeit their right to a mandatory award in the future if they wish to resume their course or start another. As well as receiving means-tested maintenance grants, mandatory award holders also have their fees paid by the LEA regardless of their financial circumstances. The arrangements are designed for students who follow conventional paths of entry and completion.

Designated courses for which students receive mandatory awards include:

i Full-time or sandwich courses leading to a university or CNAA first degree
ii The Diploma of Higher Education (DipHE)
iii The Higher National Diploma (HND) and the Higher Diploma of the Business and Technician Education Council (BTEC)
iv Courses which are comparable to degree-level courses in universities or colleges and designated by the Secretary of State
v Full-time teacher training courses
vi A few part-time courses of teacher training, which are the only part-time courses to qualify for mandatory grant

Courses which are not designated for mandatory grants include most non-degree courses, adult education, and part-time courses. In some cases special grants are available. For example, the DES provides adult education bursaries and the Department of Health and Social Security provides grants for some para-medical training. In the case of other non-designated courses, discretionary LEA grants may be available, but both the value and conditions of these grants are determined by individual LEAs. There are also postgraduate awards offered by the DES and the research councils on a competitive basis.

*Students wishing to take the Postgraduate Certificate in Education or an Art Teacher's Certificate or Diploma may be eligible for a further mandatory award.

A DES survey of local education authorities in 1977 (DES 1978) showed that about 55,000 students held full-value discretionary awards but that between 1975 and 1977 the number of new awards declined by 2,000 although the number of 18 and 19-year-olds increased. If the number of discretionary awards had kept pace with this increase a further 5,000 (or roughly 10 per cent of the total) would have been needed, so there was clear evidence that discretionary awards were becoming less common. The survey also showed that the average value of discretionary awards rose by less than the value of mandatory awards. The LEAs' total expenditure on discretionary awards in 1977/8 was almost £60 million. If the number of new awards had kept pace with the increased number of 18-year-olds, and if the average value had kept pace with mandatory awards between 1975 and 1977, an additional £6 million would have been necessary. The situation was worse for students in non-advanced further education. The survey found 45 per cent of LEAs made grants to under-19s which are more restrictive than those recommended by the local authority associations, and 80 per cent made grants to students over nineteen which are less generous than those recommended. In 1977 students with discretionary awards received on average about 75 per cent of the value of mandatory awards.

Clearly most authorities are less generous in giving discretionary awards than mandatory awards. In the case of designated courses any student who is offered a place and meets the eligibility requirements is automatically entitled to a grant; but in the case of discretionary awards, 79 per cent of the LEAs regarded acceptance for a course as insufficient proof of suitability for an award and required additional information, while 71 per cent stipulated age limits. Since 1978 the number of discretionary awards has continued to fall, although not much information is available. According to a National Union of Students' (NUS) survey of LEAs, between 1978 and 1981 41 per cent had cut the number of awards by up to 25 per cent (NUS 1981). In 1979/80 mandatory awards accounted for 71 per cent of all awards made to students, discretionary awards accounted for 25 per cent and the remaining 4 per cent were postgraduate awards. Table VII shows the total number of student awards in 1979/80 and the distribution between types of higher and further education. Table VIII shows expenditure on all forms of student support in England and Wales in 1979/80. The dominant position of mandatory awards for degree courses is apparent.

Nearly all full-time undergraduates receive a mandatory grant and, apart from contributions from their parents, no other form of financial support. A survey of undergraduates in 1974/5 (OPCS 1979a) showed that nearly 97 per cent of full-time students received a grant from a local education authority or the Scottish Education Department, 2 per cent received no assistance, 1 per cent were sponsored by the armed services, and 1 per cent received other support including industrial scholarships. Amongst post-graduate students a rather higher proportion were self-supporting or

TABLE VII
Number of student awards 1979-80 and 1980-81

		1979-80	1980-81
		(000s)	
MANDATORY AWARDS			
First degrees	– Universities	183	189
	– FE establishments	78	87
Teacher training	– Universities	6	7
	– FE establishments	35	30
Other advanced FE		21	23
Total mandatory awards		323	334
DISCRETIONARY AWARDS (FULL-VALUE)			
First degrees	– Universities	2	2
	– FE establishments	2	2
Teacher training	– FE establishments	1	1
Other advanced FE		40	38
Total full-value discretionary awards		45	43
LESSER-VALUE DISCRETIONARY AWARDS			
Non-advanced FE		69	65
POSTGRADUATE AWARDS		19	19
TOTAL STUDENT AWARDS		456	461

Source DES *Statistical Bulletins* Nos 16/81, November 1981 and 4/83, March 1983

supported by their employers. In their case too, however, financial support from public funds was their main source of income while they were studying. According to a subsequent survey in 1975/6 (OPCS 1979b) 78 per cent of full-time university postgraduate students and 69 per cent of polytechnic postgraduate students received an award from either the DES or the research councils; 12 per cent of university students and 9 per cent of polytechnic students were supported by their employer; 12 per cent of polytechnic students received a Training Opportunities Programme (TOPS) allowance; and 9 per cent of both university and polytechnic students were self-supporting.

TABLE VIII
Public expenditure on student support 1979-80: England and Wales

	(£ million)
MANDATORY AWARDS AND FULL-VALUE DISCRETIONARY AWARDS	
Fees	235.0
Maintenance	381.7
	616.7
LESSER-VALUE DISCRETIONARY AWARDS	
Fees	3.6
Maintenance	14.2
	17.8
POSTGRADUATE AWARDS	
Fees	16.6
Maintenance	40.2
	56.8
TOTAL EXPENDITURE ON STUDENT SUPPORT	
Fees	255.2
Maintenance	436.1
TOTAL	691.3

Source Woodhall (1982b)

Some mature students receive financial support from employers while in full-time or part-time education. A recent survey by the National Institute of Adult Education (NIAE) estimated that approximately one million people received some form of paid educational leave (PEL) in 1976/7 (Killeen and Bird 1981); but it proved very difficult to estimate the extent of assisted educational leave: for example, where an employee is given extra pay for attending an evening class in his own time or financial assistance towards fees. A survey of mature students sponsored by Wagner et al. (1983) shows that employers are an important source of support for fees for part-time students on courses leading to a qualification both advanced and

non-advanced, but that few students receive help from employers for other expenses; and that a majority of full-time mature students (up to two-thirds, depending on the type of course) and a substantial number of part-time students (from 20 per cent in advanced further education or the Open University, to 40 per cent in other universities) claim to have experienced significant financial loss as a result of their studies

APPRAISAL OF THE SYSTEM

There are many arguments in favour of the present system. It ensures that young people from poor homes do not miss full-time higher education because they are unable to support themselves. It is popular with students, in spite of criticism of the means test and of discretionary awards. Suggestions that it should be replaced wholly or partly by a loan system have been met with outrage by the National Union of Students. Its administration is relatively easy, and has been accepted by local authorities as one of their responsibilities for twenty years. Higher education institutions themselves have supported this grant scheme, partly because they believe it helps to ensure their supply of students and also because it takes out of their hands the problems of dealing with student support on a large scale.

In recent years, however, the grants arrangements have come under criticism from both the left and the right of the political spectrum. Criticisms include the following:

1 It is expensive, in that a relatively small number of individuals are able to benefit from a given expenditure of public funds.
2 Its net effect has been to benefit middle to high-income families.
3 It is inflexible, and in particular penalizes students who wish to undertake unorthodox patterns of study.
4 It discourages innovation in course provision outside the pattern of the three-year Honours degree.
5 There are many inequities, particularly in relation to discretionary awards.
6 Significant numbers of students, even those with mandatory awards, suffer excessively low standards of living as a result of their parents' unwillingness to contribute.
7 It would be more equitable and more efficient to concentrate what financial aid that is available on those students immediately above the age of compulsory education, which is where the substantial drop-out of working-class students occurs.

Some of these criticisms are more valid than others. However in total they constitute a formidable case for reconsidering present arrangements.

The beneficiaries of higher education still come primarily from white collar families. Whether the proportion of undergraduates from manual

working-class backgrounds would have been lower had there been no student grants is a matter of conjecture. However, because so many students come from privileged backgrounds the awards system for student maintenance, despite means testing, is a net transfer to people who both are and are likely to be better off than the average of the population. Whereas the parents of some 28 per cent of those obtaining mandatory awards had residual incomes of less than £4,700 in 1978/9 and therefore obtained the full grant, the remaining 72 per cent were above this figure: which meant that the gross incomes of the families of the great majority of students were well above national average.

The most substantial criticism is the inefficiency and inequity of the distinction between mandatory and discretionary grants. For example, in 1977/78 10 per cent of local education authorities did not give awards for courses in para-medical fields such as speech therapy or chiropody, 36 per cent did not give them for health visitors courses and 42 per cent did not give them for laboratory technician courses (Woodhall 1983). Why students pursuing academic courses should be favoured above those doing vocational training in areas where there is a widely perceived need for qualified people is understandable only as an historical anomaly. Some commentators consider it to be a reflection of the different status attached to so-called general education at degree level and to training 'below' this level. Whatever its cause, the distinction is unfair and inefficient.

Institutions respond to financial incentives. 'If students on advanced courses are treated much more generously than those in non-advanced FE, then there will always be pressure to upgrade non-advanced courses, to raise entry qualifications or lengthen courses in order to make them comparable with degree-level courses, and so allow students to qualify for superior grant status' (Morris and Sizer 1983). Part-time students usually receive no support, so institutions are discouraged from offering the kind of flexible course structures which encourage them. This less generous treatment of part-time students is a disincentive to mature students. Most authorities will not pay the full fees for students of the Open University. Mature women often have particular difficulties, since to qualify for an additional older student's allowance they must have worked full-time for three out of six years immediately prior to the start of a course. Bringing up children does not count as work.

Even for students who do qualify for mandatory awards the system has flaws. It appears that many parents are unable or unwilling to make up the full amount of the expected parental contribution. In most cases the gap is probably not large and the student gets by. Where well-off parents refuse to contribute anything, however, hardship can be considerable. The NUS has fought a long but unsuccessful battle to remove the means test, so that no student is dependent on his or her parents. One justification is that a person is legally an adult from the age of eighteen. However, abolition of the means test for mandatory award holders would have

increased the cost of awards in 1979/80 by £95 million. Moreover, it would make the grants system even more regressive and would probably do little to increase participation, since a high proportion of young people from better-off families already undertake higher education. The fact that student grants have not kept up with inflation means that the general standard of living of all students has fallen. For governments which are determined to cut public expenditure, financial aid for students is an easy target. However much the NUS complains, student grants will always be vulnerable.

The system has also been criticized for concentrating support for students on the 18 + age group rather than the 16 to 19-year-olds. Those who stay on in full-time education after the school-leaving age and who come from low-income families may qualify for an educational maintenance allowance. However, these awards are discretionary and the amounts are usually so small that they neither act as an incentive to stay on in full-time education nor meet the subsistence cost of children from poor families. Some have argued that if we are serious about equalizing opportunities we should reduce the subsidy to students in higher education and increase it for 16 to 19-year-olds, since it is at sixteen that the largest drop-out of working-class students occurs (eg Gordon 1981). The situation has been further complicated by the extensive network of financial support offered to young school-leavers through Manpower Services Commission (MSC) schemes. The problem of financial support for young people in the 16 to 19 age group is not part of our concern. However, we do think it is almost axiomatic that the net effect of the various schemes should not be to discourage young people from continuing their education.

REFORM OF THE SYSTEM

In a period when large-scale unemployment of young people is expected and there are many alternative schemes of financial support for those not in education, the case for some scheme of universal grant for students in higher education based only on assessment of need is even stronger than it was in 1960. However, the uniquely British dependence on grants alone is expensive, inflexible and unfair. The list of deficiencies in present arrangements constitutes a strong case for reconsidering present policies. Various new categories of expenditure have been advocated to remedy them. Table IX indicates the cost of some of these. The most expensive would be an increase in the size of the awards to restore their real value to that of 1962, the abolition of the means test and the more widespread introduction of educational maintenance allowances for 16 to 19-year-olds. The other three reforms, particularly mandatory grants for those on non-designated courses in higher education, could be introduced rather more cheaply. The total cost of implementing all recommendations for extending the grant system would double the cost of student aid and is, we believe, unlikely to be acceptable to any foreseeable government. In our view the widening of access is the highest priority and access seems likely to be

TABLE IX
The cost of various reforms to the current system of student support[1]

	(£ million)
Full mandatory grants for all those taking non-designated courses of advanced higher education (1982)	16
Payment of full fees for part-time students in higher education (1982)	40
Full-value maintenance awards (averaging £1,000 for those receiving lesser-value discretionary awards) (1979/80)	60
Means-tested EMAs for students aged 16-19 in England and Wales (1978)	110
Abolition of the means test (for both full-value and lesser-value awards) (1979/80)	120
Increasing the value of existing student grants to their 1962 level (1982)	125

[1] The estimates of the costs of these reforms have been made in different years. The year is indicated in brackets after each reform.

Source Woodhall (1982b)

narrowed if the average value of awards is increased substantially, because it would increase the pressure on governments to limit student numbers. What we believe to be necessary is in essence the reallocation of a sum not substantially greater than that currently used for student grants to help to achieve broader access and a more flexible pattern of courses.

Most informed commentators now recognize that a mixture of grants and loans is both a fair and an efficient way of providing financial support for students (see Morris and Sizer 1983). Our proposals for two-year initial courses would permit a mixed system of grants and loans which would be efficient, would be fair and, allowing for the protests of particular interest groups, would be seen to be fair.

The new structure of undergraduate courses that we propose offers a basis for a mixed system of loans and grants which are more widely available than existing mandatory grants and which would in the long run risk no excessive new burden on public funds. The main elements of the scheme are as follows:

i All students should be eligible for a means-tested mandatory grant for a period of two years full time equivalent post-secondary study.

ii Grants should be related to the estimated living costs of a student living at home. At present rates of grant, taking into account means testing, this would cost less than paying unemployment benefits to a young person of similar age.

iii Fees, and appropriate subsistence allowances should be paid to part-time students. This would cause some switching of students from full-time to part-time courses probably with some reduction in overall costs per full time equivalent student.

iv Students on courses beyond the two-year pass degree level should be eligible for grants on other criteria.

v Loans should be available for any student on courses beyond Pass degree level who are not eligible for grants on any of the criteria set out on page 62 below.

The Robbins Report discussed the issue of financial support to students by means of loans and concluded that 'At a time when many parents are only just beginning to acquire the habit of contemplating higher education for such of their children, especially girls, as are capable of benefiting by it, we think it probable that it would have undesirable disincentive effects. But if, as time goes on, the habit is more firmly established, the arguments of justice in distribution and of the advantage of increasing individual responsibility may come to weigh more heavily and lead to some experiment in this direction.' Since that time there has been a very substantial increase in participation rates but the system of grants for all on Honours degree courses has done little to stimulate working-class participation in higher education. Loan schemes for support of students have been introduced in many countries.

The case for loans has been argued on several grounds. Some claim that it is morally right for students to contribute to the costs of their own higher education. Some believe that loans would be more equitable than grants; others claim that they would result in greater efficiency, in that students would be more concerned about expected benefits when they chose courses. We see nothing wrong with loans in principle. However, the conditions on which they are made available are critical. They are not simply an alternative to grants.

A substantial literature describing various such schemes has been usefully reviewed by Woodhall (1982b). The issues are broadly concerned with political feasibility, administrative convenience, efficiency and equity. Equitable schemes such as income-contingent repayments tend to be the most administatively difficult, while unsubsidized commercial loans are administratively straightforward but would be susceptible to charges of inequity.

Most loan schemes include some measure of subsidy in addition to any grants that accompany the loans. There are two kinds of subsidy. One is a general subsidy to reduce interest rates below prevailing commercial

rates; the other is a guarantee of repayments when a graduate is temporarily or permanently unable to continue making them. There is no logical case for a general subsidy of interest repayments. If the loan scheme is combined with grants it would make more sense to raise the grant component. If a particular course is a personal investment by the student he might expect to pay normal rates of interest. However, little social policy is entirely logical, and a case can be made for treating borrowing for long-term investment in higher education no less favourably than borrowing for the purchase of a house or investment in small business enterprises. This would mean at least the interest component of loan repayments being tax-deductible.

Loan repayment arrangements as in Sweden, linked to realistic assessments of ability to pay, would be less inequitable than means-tested mandatory grants, in that payments would be made by the individual who benefited from higher education on the basis of actual economic benefits received. Graduates unable to find well paid employment would not have an oppressive burden of debt. Subsidy of repayments during periods of incapacity to pay could be met in two ways. In the first the debt could in effect be insured against unforeseen financial hardship. This would raise the average cost of repayment to other graduates. Alternatively, the government could act as a guarantor and simply make payments on behalf of those graduates unable to meet the debt. Logic points to the former arrangement, where beneficiaries as a group would pay a premium to cover unavoidable default rather than have the cost met by taxpayers, many of whom would have had no direct contact with higher education for themselves or their children.

Opponents claim that loans are a disincentive, especially to working-class students and to women. There is little evidence from countries with loan systems to support either of these propositions. The 'negative dowry' could be a disincentive if the typical lifestyle of graduate women consisted of childbearing and withdrawal from the labour force shortly after graduation while marriage partners assumed responsibility for repayment of the loan. In practice, most women graduates continue working after marriage and often throughout their years of childbearing. If annual repayment obligations were linked to an individual's capacity to pay out of personal income the negative dowry effect could not arise.

Loans have also been criticized on grounds of administrative cost and the difficulty of following up defaulters. In the USA default rates were initially high because lenders had few incentives to follow up defaulters, because of the terms of the federal government guarantee to them, and because there were no provisions for postponement in cases of sickness or unemployment. More recently, however, as a result of changes in the terms of the loans, default rates have declined substantially (see Woodhall 1982).

In the scheme we envisage loans would be the main way in which students would be financed after completing their initial two-year Pass degree but

they would not be the only way. Five other forms of financial support beyond the initial two-year period of higher education should all have a place in a reorganized system of student support.

i Scholarships and fellowships
ii Advanced-level training grants
iii Sponsorship
iv Retraining grants
v Work study programmes

Scholarships would need to be available to encourage exceptionally able students to continue their studies in areas important for the cultural and intellectual life of the nation but where there was no clearly defined employment prospect and little likelihood of subsequent economic benefits enabling the repayment of loans. In general we would not anticipate such scholarships being widespread; but in some areas of fine arts, ancient history, pure science and philosophy there might be serious danger of long-term loss to intellectual and cultural life if some students were not able to pursue their studies to the limit. These scholarships might be administered through the research councils or the British Academy being essentially an extension of schemes that already exist.

Grants would be needed where a specific national requirement for qualified manpower was identified but the number of students coming forward was inadequate in either quantity or quality. Such grants might be administered by the Department of Employment. In an efficient labour market the need for them should not arise, because where there is an acute shortage the normal expectation would be for high enough salaries to repay graduates for any borrowing during the later years of study. However, as Lindley (1981) makes clear, British employers do not always allow salary differentials to reflect what they claim are real economic demands.

The third form of support would be where employers, rather than attracting graduates in particular areas with higher salaries, would prefer to intervene directly and sponsor students to take courses of particular value to them. Both public and private sector employers might be expected to offer such sponsorship. Fourth, retraining grants should be available for people suffering from long-term structural unemployment, to enable those who have already used their automatic grant entitlement for an initial course of study to take courses to update their skills or acquire new ones. Retraining grants might also be administered by the Department of Employment.

Finally there are what are known in the USA as work-study programmes. It has been common for many years in the United States for students to work their way through college. However, declining employment opportunities have made this more difficult than in the past. As a result, a number of American universities and colleges have introduced work-study programmes which provide students with part-time employment on the campus

in catering, cleaning, gardening and various forms of clerical work. A limit is set to the number of hours any individual student can be employed under the programme (ten hours per week appears to be a common ceiling). Whilst such schemes provide students with valuable work experience of different kinds and universities with a flexible and ready supply of labour, we have doubts about whether they could make a significant contribution to the financial support of students in Britain where there is little tradition of working one's way through college, and where, in a period of high unemployment, work-study programmes could displace full-time workers. However, they might have a place in the portfolio of support schemes for students on higher level courses when the economic climate improves.

SUMMARY

In this chapter we have outlined the present system of student support in Britain and suggested that it has a number of serious flaws. We recommend that it should be replaced by a mixed system of grants and loans. Means-tested grants should be paid to all students for the first two years of their study. Thereafter student maintenance should be financed predominantly through loans supplemented by a variety of grants for particular target groups. Part-time students who are qualified to receive financial support should have their fees paid according to the same criteria as full-time students.

6

AUTONOMY, TENURE AND THE ACADEMIC PROFESSION

AUTONOMY AND ACCOUNTABILITY

Most educational establishments in Britain, and especially universities, enjoy substantial autonomy. Individual teachers are free to teach and do research guided mainly by their own professional judgement. This autonomy is a source of justifiable pride. It is also the subject of some muddled thinking. Neither the autonomy of institutions nor the freedom of individual teachers can ever be absolute. Research councils, government departments and private sponsors have a powerful influence on research priorities, professional bodies regulate curricula in some subjects, and school-leavers largely determine which subjects will expand and which contract. Public sector institutions of higher education are subject to course controls from external academic and planning bodies. As excess capacity begins to emerge later in the 1980s it is almost certain that funding bodies will come to have an increasing influence on the academic activities of colleges, polytechnic and universities, deciding which to close and which to develop. It is, of course, a gross oversimplification to polarize the issues in terms of a debate about detailed political control of the content of courses versus indiscriminate licence at the public expense for anyone who happens to be working in higher education. The real issues are the political and economic relationships between students, academic staff and the rest of society, and whether academic freedom should mean individual or collective responsibility for the content and quality of courses and research programmes.

Academic freedom is an element of the good society. The free expression of intellectual opinion is intrinsically valuable. The right to conduct research in any area, subject only to professional academic judgement, is an end in itself. There are, however, some difficulties. Should academics have a greater right to free expression than other citizens? Is it not necessary to encourage freer expression of opinion among the weak and inarticulate rather than protect the entrenched positions of the able and fluent? Claims for academic freedom give little guidance when it conflicts with other intrinsically desirable ends. Some research is morally unjustifiable whatever the possible scientific benefits. Students, although consenting adults, are intellectually dependent on their teachers. They need safeguards against individual academics whose teaching is inadequate, obsolete, immoral or just wrong. The need to protect a future Galileo from persecution cannot justify claims for having no external constraints on what any individual academic teaches or studies. Other issues arise because higher education is paid for largely

out of public funds. Voltaire may have been willing to defend to the death the right of others to express contrary opinions. It is not clear that he would have been willing to be taxed to enable them to live fairly comfortably while doing so. The issue of accountability for public funds, and the location of the legitimate rights to determine the limits of their use, cannot be absent from any discussion of the professional freedom of those who use the funds.

Some arguments for academic freedom are instrumental. Knowledge and truth are likely to be pursued best by individuals who are subject to no constraint other than the rules of evidence and the laws of logic. However, some organization of knowledge is necessary; scientific progress would be slow if every scholar had to start from scratch. It is not clear, however, who should have the prerogative of organizing knowledge. It might be individual academics. It might be academics acting collectively in their institutions or as members of a discipline. It might be various groups in a wider society. Obviously, professional expertise gives academics some authority, but there are clear limits to this authority. Knowledge and truth are divisible. There are many truths and many items of knowledge. Free inquiry is efficient in the pursuit of a particular truth or a specified research objective. There is less reason to suppose that professional academics pursuing their own interests individually or collectively have special claims to the right to decide which truths and which items of knowledge are most worth investigating or communicating to others. Professional expertise has a contribution to make to such decisions: the pursuit of knowledge that is intrinsically unknowable is not very useful. But professional expertise cannot be the only criterion in the selection of topics for study. There are legitimate bounds to individual and collective professional freedom in deciding what is worth teaching and what is worth investigating.

There is also instrumentality in arguments about efficient use of resources. People who are responsible for organizing their own teaching and their own research are more likely to try to make efficient use of resources than those who are controlled from outside. Individuals or small groups working within specified resource constraints are more likely to be conscious of the fundamental economic truth that there is no such thing as a free lunch. In higher education there is the additional problem of serious difficulties in identifying and measuring outputs. If resources are allocated centrally and are apparently costless to the ultimate user, there are few reliable performance indicators to enable outsiders to evaluate, for example, claims for more expensive computers or special collections of library books. It is inevitable that the allocation of resources in higher education is based, to a substantial extent arbitrarily, on the preferences, interests and judgement of those who control their use. However, this does not answer critical questions about the role of academics individually and collectively in decisions about resource use. Who can most efficiently decide what courses

a particular institution ought to be offering? What is the role of academics, whose technical competence and professional judgement will ultimately determine the success of the enterprise? How much influence is appropriate for students whose subsequent lives will be affected by what they are taught, but who may not be well-informed about the implications of particular decisions? What part should politicians play? They represent those who pay for higher education.

The case for the autonomy of academic institutions is in some respects the organizational equivalent of the case for individual academic freedom: intrinsic desirability in a pluralistic democracy, and efficiency in pursuing agreed aims. Ultimately it must rest on the belief that if individual intellectual freedom is limited, it can most nearly be approached when individuals are constrained by a relatively small organization rather than by a large one. Any one person is more likely to be able to influence the operation of a small group than a large one. However, most universities and polytechnics are not small enough for teaching and research decisions to be hammered out in open debate amongst all their members. This was one of the main claims of the radicals of the 1960s, and its failure was not due entirely to successful manoeuvring by established authority. Universities and colleges are large, complex organizations with competing interest groups, in which a substantial measure of internal political and bureaucratic specialization is inevitable. The problem of academic organization becomes one of deciding the relative merits of different kinds of political and bureaucratic groupings. We have doubts about the efficiency of academic decision making within large, general-purpose institutions. The advantages, for example, of decisions about resources for philosophy being taken in part by chemists are not clear-cut. It seems likely that technical decisions about the broad national pattern and orientation of philosophy teaching are likely to be made more efficiently by debate among philosophers than debate among philosophers and chemists. On the other hand, decisions about the relative emphasis to be put on philosophy and chemistry teaching are better debated in the broader political arena and influenced by the wishes of students.

A case for institutional autonomy arises from the substantial measure of disagreement about objectives in a pluralist society and uncertainties about the outcome of most teaching and research. Gross errors are more likely to be avoided, and the occasional brilliant insight made, when many different flowers are blooming. Error or misjudgement or inertia in some institutions may be more than compensated for by the benefits obtained from the successful ones. This argument amounts, in our opinion, to a note of caution that there needs to be specific justification of any external intervention in the internal activities of colleges, polytechnics and universities rather than prohibition of it.

The most delicate part of the debate about academic freedom is its relationship with the security of tenure enjoyed by most academic staff of

universities. There is no mystery about tenure. It simply means that most teaching members of universities have contracts which guarantee their employment until retirement age. The usual justification for such long-term contracts is that job security is needed to protect the teaching and research of individual academics from interference from inside and outside their university. Anyone who has a lifetime contract of employment with only loosely specified responsibilities is substantially independent of outside influences. However, this argument is dubious as a defence of tenure. Tenure is not granted to teachers in institutions other than universities. It is rarely granted to research staff, who might be thought to have at least as strong a case as teachers. Even senior research staff are often denied tenure on the grounds that no institution wants to commit itself for very long periods to a research worker whose creativity might dry up. Finally, there are many occupations where the same professional judgement and intellectual integrity are required but where there does not appear to be the same benefit in tenure. It has not been thought necessary to protect politicians, journalists or authors with lifetime contracts to carry out their trade.

Lifetime tenure, like the ownership of property, obviously protects those who possess it. It may, however, actually reduce the freedom of others, particularly those who aspire to university employment. Tenured academics may be freed of the need to conform to external pressures. Novitiates aspiring to academic appointments are under intense pressure to conform to the norms of those who make the appointments, particularly in a period when there are few appointments to be made. The longer the duration of an employment contract, the greater the cost to the employer of an error of judgement in making an appointment. Risky appointments are very dangerous. If, therefore, lifetime tenure is the predominant form of employment, there is a good possibility that those who are appointed will have opinions and judgements that conform to existing predominant academic norms.

For legal and moral reasons existing contracts of tenure should be honoured; but this has little to do with tenure as a defence of academic freedom. Appropriate appointments for new staff should be considered in terms of realistic career prospects for able young people and the efficient management of institutions which have responsibilities to students and to the wider society as well as to their own members. Career aspects of tenure are discussed below (p. 69).

THE ACADEMIC PROFESSION

All higher education institutions have a hierarchy of academic posts. In the universities there are four main grades: lecturer, senior lecturer, reader and professor, as well as a variety of research grades which are usually temporary appointments. Outside universities the standard hierarchy consists of two grades of lecturer, senior and principal, and head of department.

Most people start at the bottom of the hierarchy and work their way up through it, though some are recruited to a senior position from outside higher education, and sometimes they jump a grade when transferring from one institution to another. Compared with many occupational hierarchies there is little variation in the actual work performed by people in different grades. In universities in particular, lecturers have similar responsibilities to senior lecturers, readers and many professors. Both in universities and in public sector institutions it is only at the level of head of department that administration begins to loom large. There is an expectation that senior academics will play a greater part in the running of the institution as a whole than their junior colleagues. However, in the universities in particular, even those in the most senior academic posts below the level of vice-chancellor will normally be expected to continue to teach and to do research.

A typical career pattern during the post-Robbins period was as follows. After completing a PhD, and in many non-science subjects before completing it, a young man or woman with a good Honours degree could hope to obtain a lectureship. Provided he or she taught adequately and published occasionally there was a good chance of promotion to a senior lectureship or principal lectureship. Whilst not all could hope to become professors or heads of departments, the opportunities for doing so were good, particularly for those who were willing to be geographically mobile and to seek promotion outside their own institution. During the 1960s career patterns were such that about 40 per cent of university teachers could expect to have a chair for at least ten years preceding their retirement. Rapid growth during the 1960's also meant that it was a young profession. In 1969 63 per cent of the academic staff of universities were under forty, 26 per cent were under thirty and only 13 per cent were over fifty (Williams, Blackstone and Metcalfe 1973).

After the period of rapid expansion in the late 1960s and early 1970s the academic profession faced the problem of slow growth, and by the early 1980s appeared to be entering a period of contraction. Recruitment is now negligible. Promotion prospects are much worse than they have been at any time in the last twenty years. Many of those in the 'bulge' who were recruited in the late 1960s are now faced with a serious promotion bottleneck. Most senior posts are now occupied by entrants from the early years of the bulge. It will be some time before many of them retire, and virtually no new senior posts are being created. Voluntary redundancy and voluntary early retirement are being sought by university and public sector institutions. Promotion prospects are poor and compulsory redundancies are probable within the next decade. The morale of the profession is understandably low.

There are not only poor promotion prospects and low morale. There is also the crisis of long-term low recruitment. Graduates with excellent qualifications and, in some cases, considerable experience of post-doctoral

research cannot start on an academic career. Although it may be that in the 1960s higher education itself consumed too much of the nation's best talent, the long-term disadvantages of a higher education system that has lost a generation of able young people are even greater. The academic profession is ageing, with fewer and fewer of its members being in their twenties or early thirties. Virtually a whole generation is missing. 'The worst crime those responsible for higher education could perpetrate over the next 15 years would be to bequeath to the next generation a system in which 80 per cent of the staff was over the age of 45' (Wagner 1982).

The lack of new blood amongst higher education staff and the rapid ageing of the profession is likely to have a particularly damaging effect on research. Many academics, particularly scientists and mathematicians, do much of their most inventive and creative work early in their careers. Men and women in their twenties and thirties are more likely than their older colleagues to have new ideas and to come up with original ways of tackling things. A report of the Advisory Board for the Research Councils on the support of university science research says that it is now not at all unusual to find physics and chemistry departments where no new staff have been recruited for five to ten years (Merrison 1982). A decline in both the amount and quality of research could result from the failure to replenish the ranks of academics. It is gratifying that government allocated some funds for new blood in 1983; this needs to be the beginning of a long-term programme.

Tenure

The dilemma for higher education institutions is easily stated. In face of the declining population of young adults they will either have to adapt to attract new clientele or contract substantially. If they contract, some existing staff will lose their jobs. If they are to adapt to take advantage of areas where there is potential demand, they will need to appoint new staff. In either case the long-term health of higher education calls for some loss of staff at various stages of their careers; and that adjustment is not made simply at the two ends by early retirement and failure to appoint. The problem is exacerbated by the existence of lifetime tenure contracts for most teaching staff in the universities.

Earlier we considered tenure as a protection for academic freedom. Our conclusions were lukewarm. A more likely explanation of the practice of almost universal lifetime tenure is economic. By offering lifetime contracts in a period of expansion universities were able to pay able young persons less than would have been necessary if individuals themselves had had to bear the risk of loss of income should their early potential fail to be realized. Universities which expected to grow rapidly used tenure to attract promising young staff away from their competitors. Young people at the start of their careers may have accepted tenure, with its prospects of lifetime

earnings lower than they might otherwise have expected, because of the security apparently offered. In effect, they can be seen as having paid an insurance premium in the form of a lower starting salary in exchange for employment security. In retrospect, competition for staff in the 1960s may have led to some excessively hasty judgements about the future performance of individuals to whom tenured contracts were given, and too high a proportion of university income may have been committed to the salaries of tenured staff. However, governments tacitly agreed to this practice, and there is no evidence of any government criticizing university tenure before 1980.

Tenure is vigorously defended by university teachers but the apparent feather-bedding is a frequent cause of criticism. Peter Knight maintains that 'the concept of tenure in the universities is a disgraceful anomaly which should be removed at its earliest opportunity. Security is one thing, academic freedom is necessary and should be defended, but the idea that these two objectives can only be achieved by a guarantee of a job for life is completely unacceptable in the current age' (Knight 1982). William Taylor argues that the structural problems of the profession will not be solved 'until the over-riding issue of tenure has been dealt with. Tenure is often defended on the grounds of academic freedom when the chief motivation is in fact job security.' He goes on to point out: 'there are grounds for linking tenure with academic freedom, but not necessarily in respect of every single academic who has succeeded in satisfying the hitherto less than onerous demands of a three-year period of probation. There *are* economic, managerial and educational reasons for wanting changes in the system of tenure' (Taylor 1982).

Wagner questions whether tenure is either a necessary or sufficient condition for the maintenance of academic freedom. He claims that its importance can be exaggerated. 'There have been instances where tenure has not been an adequate defence against a strong-minded establishment. Moreover, there are other ways, particularly through the reward and promotion system, whereby unpopular views can be and have been punished.' He points out that tenure exists only in the universities; in the public sector staff are protected by national employment legislation. Yet there is no evidence that staff in the polytechnics and colleges have been more inhibited in freely expressing their views about controversial subjects. Wagner goes on to suggest that while the security of tenure may stimulate some staff to fresh thinking, for others it is a cushion which enables them to ignore new ideas and reject fresh approaches. 'Also, it effectively means that an institution's teaching programme is determined over a long period by the interests and needs of its staff rather than its students. Once a subject is part of a university and the staff who are engaged, it must remain so, whatever students demand, until the staff leave or retire' (Wagner 1982).

The system of almost unconditional lifetime tenure for most university

staff is no longer realistic in a higher education system which must adapt but in which little growth is likely in the foreseeable future. We are not in favour of indiscriminate hire-and-fire, though that is the prospect currently facing many young academics in temporary teaching and research posts. Permanent appointments in the universities as in the public sector can be protected against unreasonable dismissal by employment protection legislation which did not exist when the system of tenure evolved.

A radical reform of tenure would not resolve the immediate dificulty in increasing the number of openings for new staff or improving permanent prospects. Within the terms of existing contracts there is one measure that could slightly loosen up career channels and which is desirable in its own right. There is little reason why posts which carry substantial administrative responsibilities, such as head of department, should be permanent appointments. Institutions can suffer even more from the poor performance of senior staff who should be providing academic leadership than from the activities of incompetent lecturers. Holders of posts with academic authority and senior administrative responsibility should be required to demonstrate their continued capacity at regular intervals. We believe that posts such as head of department should be for fixed periods. Appointments should be renewable but open to other applicants at least every five years.

It is inevitable that early retirement schemes will continue for a substantial period into the future. To have any effect in the short or medium term such schemes must remain largely voluntary. They will, therefore, put considerable strain on pension funds. We believe that the benefits for the higher education system generally are such that governments should be prepared to continue to allocate specific funds for this purpose for at least a decade. Furthermore, the potential benefits in promotion prospects for younger members of the profession are such that not only institutions but also their employees should be willing to pay significantly higher contributions to pension funds in order to maintain early retirement schemes.

The Need for Mobility and Flexibility

One effect of the absence of expansion is the increase in the number of staff with little experience outside their own institution. When growth was rapid many academics were appointed in mid-career with experience in other institutions and outside higher education. At a time when recruitment is low, new ideas can be introduced only through secondment and interchange of staff. We appreciate that not all staff mobility is fruitful, that some continuity has advantages, and that there are excellent teachers and researchers who have spent their whole lives in one institution. Nevertheless, in general, universities, polytechnics and colleges seem likely to be invigorated by a regular infusion of ideas and experience from elsewhere. A scheme might be developed whereby individual academics could change places with colleagues in another institution for a significant

period or obtain a secondment. Clearly the scale on which this can take place is limited by such factors as difficulty in transferring a research grant from one place to another, personal constraints like housing, and not least cost. However, we are certain that there is a pressing need for a significant national scheme of this kind. Organized schemes are also needed to permit and encourage academics to undertake periods of work in industry and government. Obviously, long absences can create problems, but we believe these are likely to be more than balanced by the benefits of experience gained in the outside world.

Current salary scales in universities provide little incentive for less successful staff to try to do better elsewhere. Lecturers are on a seventeen-point incremental scale. Thus, lecturers appointed at the age of twenty-five or twenty-six will go on obtaining a salary increase, almost irrespective of what they do, every year until they are forty-two or forty-three, by which time they have reached an age where job change becomes difficult. The reverse side of this coin is that lecturers who do perform particularly well cannot be differentially rewarded if there are no senior posts. University salary scales, like those in the public sector, should contain points at which an explicit review of performance is required before lecturers are able to proceed to the next salary point. After an initial probationary period of not more than five years a formal performance review every seven years would probably be appropriate.

There is little movement of staff out of higher education, nor is there much recruitment into it from outside. This is likely to become even rarer. There are some areas such as applied science and technology and the performing arts where it is hard to envisage students receiving an adequate higher education unless they have some exposure to those whose knowledge of a subject is practical as well as theoretical. Even in more academic subjects there ought to be more provision for regular teaching from people with practical experience at a senior level in the world of the arts, the media, the professions, industry, and central and local government. If recruitment of experienced people in mid-career remains very rare, part-time staff will have a critical role; and their position needs special protection at a time when limited budgets make them particularly vulnerable.

SUMMARY

Our prime aim in this chapter is to defend academic freedom by making it defensible. Our proposals are designed to allow response to changing academic and social circumstances. They aim to make it possible to maintain the quality of academic staff and to recruit able young people. For the hard-working, conscientious and able they should provide better rewards and opportunities than at present appear likely. In the universities they would have the effect of reducing the gaps between the terms of service of research staff, nearly all of whom are on temporary contracts, and those of teaching staff, most of whom have permanent lifetime contracts. We have

made the following specific proposals.

- University tenure should be retained in existing contracts.
- New contracts should not contain a lifetime tenure clause. In future, academic staff in universities should be subject to normal employment protection legislation.
- Senior academic posts which carry substantial administrative responsibilities should be on a fixed-term, renewable basis.
- Salaries in universities and public sector institutions should be based on similar criteria, and long salary scales replaced by scales not longer than seven years.
- There should be a formal performance review before staff proceed from one salary scale to the next.
- Governments should be prepared to contribute to long-term early retirement schemes, and institutions and their employees should be prepared to make increased contributions to pension funds in order to improve career structures.
- Temporary exchanges of staff between higher education institutions should be encouraged.
- There should be more opportunities for academic staff to spend substantial periods of secondment outside higher education.
- Part-time appointments should be protected.

7

ENVIRONMENT FOR LEARNING

THE QUALITY OF TEACHING

Teaching in higher education has many aspects: different students are taught by different teachers in different institutions. Teaching effectiveness varies from the good teacher using appropriate methods with committed students to indifferent teachers using inappropriate methods with apathetic students. The aims, organization and methods of teaching that may be effective in some circumstances for some students may be entirely ineffective for other students in other circumstances. In some cases there is a body of factual knowledge to be learned, in others an understanding of principles or relationships is more important and in yet others the main consideration is learning how to do something. It is unlikely that any particular approach to teaching will be appropriate for more than a small section of the range of activities which any higher education institution must undertake.

The matching of teaching methods to student aptitudes and interests will become increasingly important if, as we hope, universities, colleges and polytechnics increase the diversity of their course offerings and admit higher numbers of students who have not recently been very successful in academic secondary education. In a highly selective university the quality of teaching may not be important. Trained minds of high ability can learn under most circumstances (though it is reasonable to wonder how many very able students have not achieved their full potential because of inappropriate teaching). However, the gap between potential and achievement risks being greater for adults whose experience of full-time study is several years in the past, and for students whose secondary education has not been a particularly rewarding experience. If, as we also hope, a substantial proportion of these new students are able to attend courses part-time, it is particularly important that the time they spend in college should be as productive as possible. Noel Entwistle has concluded that:

> '... as no single approach can be best for all students, we should perhaps settle for a mixed economy which presents a clear structure but allows freedom for some individual work. The accepted mixture of formal lectures, information discussion groups and individual study may not, after all, be far wrong. What may, however, be necessary is to think more clearly about the functions of large-group and small-group methods in relation to the particular intellectual skills or cognitive style they are expected to foster, and whether the assignments and examination

questions given to students provide sufficient encouragement for deep-level processing.' (Entwistle 1977)

The quality of learning depends on matching teaching methods and organization to the needs and aptitudes of particular students following particular courses. It is unlikely that all teachers will be equally competent in all aspects of teaching so there would be gains if each were to concentrate on those in which he or she had a comparative advantage. There are, however, limits to the net benefits from such specialization. There are complementarities between different types of teaching and learning. No lecturer, however able, is likely to be able to give more than a small number of very good lectures each week; but a lecturer can readily undertake complementary small-group teaching or laboratory sessions based on his lectures and, incidentally, thus obtain direct feedback on them.

If functional specialization is carried to extremes there is a danger that collegiality will be destroyed. A university whose members consisted of specialist lecturers, specialist small-group tutors, specialist researchers and specialist curriculum materials planners would have a different ethos from one in which everybody performed the whole range of academic tasks. Status hierarchies would probably develop, with lecturers high on it and small-group tutors low. However, status hierarchies exist already. Some subjects and some institutions are more sought after than others, and some people are more successful teachers and researchers than others. If small-group teaching, for example, were recognized as a specialist academic skill, those who were able to demonstrate particular competence at it could well have prestige and promotion prospects similar to lecturers who were able to hold large audiences spellbound but were unable to suggest imaginative project work for individual students. There would remain good and bad teachers of all types; but the average quality of teaching would be improved if there were incentives for staff to concentrate on their areas of comparative advantage, and if students had more flexibility in deciding how they would mix their modes of learning their subjects.

Such considerations point towards more experiments with team teaching. This has been successfully pioneered in the Open University where there is a separation of function between authors of texts, makers of television and radio programmes and course tutors. Yet all have a role and all collaborate on many aspects of courses. Several polytechnics have also developed team teaching techniques, though in most cases the teams consist of specialists by subject area rather than specialists by function. In the universities, however, the community of scholars does not often become a community of teachers in which teaching tasks are performed on a collaborative basis. All too often the individual academic is left to 'do his own thing', whether well, indifferently or badly.

THE QUALITY OF STUDENT ASSESSMENT

For many students the most important aspect of a course is the qualification they obtain at the end of it. The class of first degree affects a graduate's early career and often influences it well into his or her working life. Justice for students and efficiency for employers require that the assessment of students' academic performances be done as competently as possible. Lewis Elton (1982) has argued convincingly that present methods of student assessment do not provide reassuring evidence that justice can be seen to be done. The credentials graduates obtain should provide information about their capabilities and achievements. Like Elton, we doubt whether the classification of degrees into three or four broad classes is the most useful way of providing the necessary information. It might be supposed that a first class degree in, say, chemistry would imply acquisition of a particular body of knowledge or method of thought. However, this is far from certain. Any chemistry syllabus implies a selection from all the possible knowledge a chemist might be expected to have. This selection is made partly by the teaching staff of the department, who decide what courses to offer, and partly by the student, who decides which of those on offer he wishes to study. While, therefore, a potential employer can safely assume that someone with a chemistry degree will have at his disposal a selection of knowledge that is different from that of a graduate in biology, it is impossible for anyone without a close acquaintance with the particular institution in which the degree was obtained to know, except in very general terms, what has been learned.

The boundaries are especially fluid in some of the fields recently added to higher education curricula. Some subjects fill gaps in previously recognized domains of knowledge, such as systems analysis and environmental sciences; others arise out of new research discoveries, such as electronics and biophysics. Some arise out of the desire of professions such as accountancy and some para-medical subjects to achieve higher status. In such professional subjects attempts to solve the problem of legitimation of content of courses can run the risk of another danger: professional bodies putting academic institutions in too tight a straitjacket and thus inhibiting the academic development of the subject.

We do not advocate standardization of course content or assessment. However, it is important for students and for those who teach them or employ them afterwards to obtain reliable information about how courses of apparently similar content in different institutions do in fact compare with one another. This kind of information will become critical if, as we advocate, there is more credit transfer allowing students to do different parts of their courses in different institutions. One of the proposals of *Professionalism and Flexibility in Learning* (Bligh 1982) is that teachers in higher education should explain clearly to students the aims, structures, procedures, requirements and methods of assessment of their courses. We agree, but there is a need for regulation as well as information.

Variation of content is not the only aspect of assessment for qualifications which gives cause for concern. When students are assessed they have a right to expect that they will all fare the same regardless of when and where they were assessed. Equalization of standards across institutions is supposed to be achieved by the network of external examiners, through which every student has his work exposed to at least one professional academic from an institution other than his own. If every external examiner applies exactly the same criteria as in his own institution, the standards applied should be uniform across the system. We are not able to judge how well the system of external examining operates. No study seems to have been made of it. What we can say is that well-informed observers such as Elton (1982) are sceptical about it. We have been able to ascertain that the tasks external examiners are expected to perform vary widely between institutions. In most places external examiners have little part to play in the design of courses, and rarely are they in a position to examine properly all of the work of more than a small sample of students. One curious feature of British higher education seems to have been little remarked. The 'A' level grades of entrants vary considerably between different institutions yet the variation in the proportion of graduates with degrees of each class shows much less variation. This suggests either that universities whose entrants have high 'A' level grades do a poor job of turning these into good degrees or that, despite external examining, the standard of academic attainment implied by a particular classification is not the same in all institutions. A comprehensive study of the external examiner system is, we believe, necessary to reveal the existing variety of practices, to try to determine how effective the system is in ensuring reasonable uniformity of standards and, if necessary, to make recommendations for its improvement.

THE QUALITY OF TEACHERS

It is difficult to obtain a teaching post in higher education. While the competition has not always been as intense as now, it has, with some exceptions in the 1960s, usually been the case that only graduates with good degrees have been able to obtain academic appointments. Appointments are made only after a thorough review of past performance and after serious attempts, mainly through interviews, at assessing likely future performance. This does not mean that recruitment procedures cannot be faulted. Despite the intense competition for the few posts that are available, few appointing committees require applicants to give a demonstration lecture or to handle a tutorial group.

The evaluation of staff after appointment varies considerably between institutions. While universities, by agreement between the Association of University Teachers and the Vice-Chancellors' Committee, have a three-year period of probation for initial appointments, there are substantial differences between them in their treatment of probationers and the proportion who are retained on the permanent staff at the end of their period

of probation. Following successful completion of their probationary period most university teachers do not have their performance formally evaluated again unless they apply for promotion or a post elsewhere. There is provision for an efficiency bar about halfway up the 17-point lecturer scale, but few staff are held at that point and in many universities what evaluation does take place seems to be largely a formality. In the public sector the scales are shorter and some evaluation takes place when individuals transfer from one scale to another. We have suggested in Chapter 6 that there should be formal reviews of performance every seven years. Here we consider more frequent but less formal performance appraisal.

In neither university nor public sector is there any widespread regular review of staff performance. We believe that teaching would benefit if there were. There are difficulties in making such assessment and some danger of damaging the self-regulating sense of professional responsibility on which successful higher education teaching ultimately depends. However, some form of formal accountability by individuals can be justified. It would help to dispel what appears to be a widespread public impression of lack of accountability for the considerable public funds devoted to higher education. Furthermore, individual lecturers can benefit from formal appraisal by a sympathetic head of department. Some method of self-appraisal, perhaps in the form of a record of activities during the previous year and a statement of intended aims during the following year, would be both appropriate and feasible. It would not need to differ much from the regularly updated curriculum vitae that many academics maintain. The process of compiling such a document would help staff to be self-critical and to improve their own integrity as academics. Discussion of it with departmental heads would enable misunderstandings and misconceptions to be clarified.

A regular appraisal system could help to meet one of the most frequently made criticisms of the criteria used for the promotion of academic staff, particularly in universities. This is that insufficient attention is given to teaching as compared with research performance. It is understandable why there should be such an emphasis. The status of an institution is influenced by the prestige and visibility of its research. A university which rewards its successful researchers is acting in its own self-interest. For individuals, also, research output has greater visibility. Research publications are subjected to a rigorous process of academic refereeing and are subsequently available for formal and informal evaluation. Teaching is not normally open to such scrutiny by academic peers. Complaints are made that insufficient attention is paid to teaching, yet at the same time there is often resistance to any systematic evaluation of individual teaching competence. In our opinion teaching performance should be a criterion given at least equal weight with research performance in the evaluation of staff for whom teaching is a major activity. However, this is not realistic without formal establishment or systematic procedures. Obviously such

assessments should include all aspects of teaching performance, including tutorial work and preparation of course materials as well as lectures.

TECHNOLOGY AND TEACHING

Information technology is undergoing a transformation more fundamental and more rapid than any that occurred with the invention of writing or of printing. The dramatic fall in the cost of electronic equipment of all kinds in recent years means that scepticism about the revolution in information systems is no longer tenable. Unless higher education institutions remain in the forefront of this technological revolution they risk sinking into irrelevance well before the twenty-first century. Higher education has an important role in the preservation of the nation's cultural and intellectual heritage. However, the guardians of a culture must also have representation in the vanguard of the forces for cultural and technological change.

The new technologies impinge on higher education in four ways:

i Where fundamental research can result in improvements in the technology itself.
ii Where applied research can widen applications of the technology.
iii Where skills can be developed in students to enable them to obtain employment in occupations dominated by the technologies.
iv Where new technologies can be used to improve teaching and learning generally.

Our concern in this chapter is with (iii) and (iv). We discuss the research function of higher education institutions in the next chapter.

Teaching young people skills necessary in a world pervaded by the technology of the electronic revolution is a crucial task of contemporary education. It includes the ability both to take advantage of the technology and to resist its excesses. In higher education, preparation for employment in occupations concerned with high technology or with extensive use of its products is the most obvious task, and is the clearest reason why institutions must keep abreast of new developments. Young people are sensitive to career opportunities in choosing their higher education. For several years the demand for university degree courses in computer sciences has grown more rapidly than any other subject. We think that this kind of pressure is likely to continue.

One aspect of rapid technological change is uncertainty about which developments will prove fertile and which will prove to be dead ends. This has implications for higher education institutions aiming to equip students with appropriate skills. First, it is essential that the basic skills are generalizable to the extent that they provide a platform for retraining as the technologies develop over a period of thirty or forty years. Second, institutions must keep in close contact with sectors of the economy which

provide the main employment for such graduates. Third, institutions must themselves retain the capacity to adapt. Even if general schemes for stimulating mobility and retraining academic staff move rather slowly in the interests of collegiality and the maintenance of consensus styles of academic management, it is imperative that there is a capacity for rapid adaptation in the new information technologies. It is not being dramatic to suggest that the survival of institutions and, indeed, of the whole higher education system in its present form may depend on such a capacity for adaptation.

There is little reason to suppose that most academics are inherently hostile to new technology. The Open University has been an outstanding success; most university and polytechnic libraries have rapidly growing collections of video- and audio-tapes; and, above all, photocopying machines are intensively used for copying lecture notes, extracts from copyright works for teaching, and copies of articles to send to impressionable colleagues. The successful teacher of the future will be the one who makes proper use of electronically based teaching materials just as good teachers have for many centuries encouraged their students to make proper use of their university libraries and bookshops.

Advocates of new technology as well as individuals and groups responsible for improvement of teaching methods claim, however, that inadequate use is made of the available opportunities. Many universities and polytechnics are full of under-used closed-circuit television systems, and there have been many false starts in the search for successful computer learning programmes. An explanation for these failures almost certainly lies in relative costs and their incidence. Until very recently the cost of the hardware associated with both video-tapes and learning programmes has been such as to limit considerably their accessibility. Video recorders and computer terminals have been available in only a limited number of locations in a university or polytechnic, and the materials associated with them have been costly. Even now an Open University video-tape costs over £100 for half an hour of playing time, whereas books containing several times the amount of material can be brought for under £10. It is probable that the benefit-cost ratio associated with many aspects of the new technology have not been favourable compared with the traditional labour-intensive, capital-saving methods of tuition. Recent changes in relative costs have changed the picture dramatically. Micro computers, inexpensive terminals linked to mainframe computers and video equipment can be readily available to every student. The cost of hardware need not longer inhibit its widespread use.

However, the main advantages of programmed and video materials do not derive from reductions in teaching costs. Their main value as parts of well-planned teaching programmes is in enhancing quality. In medical education, for example, students can see operating techniques more clearly on the television screen than if they are actually present in the operating theatre. In the natural sciences, chemical and physical processes can be

shown in operation. In the social sciences, practising politicans or senior civil servants or delinquent juveniles can be recorded directly on to tape; and in literature, dramatic productions can be dissected. The Open University has been remarkably successful in showing what can be achieved.

If mandatory student grants were available for only two years of post-secondary education, some students might opt to take Pass degrees at the Open University at their own expense and save their grant entitlement for the more specialized later years of their courses. The Open University should relax its rules on young entrants to permit them to take advantage of such a possible route. As well as considerable cost advantages for individual students there would be a net saving of national resources. Introductory courses, relatively little affected by new research findings and therefore able to be used for several years and taken by large numbers of students, offer the maximum cost and quality advantage for capital-intensive teaching methods. Of course, such an approach would not be appropriate for all students. Tutorial contact is an essential part of the Open University system but many students, especially younger ones, would want more personal contact with their teachers and fellow students than can be provided by such distance learning methods. It is, however, an option which should be open to them.

Another organizational change which would encourage the greater use of new technology would be the provision of funds for inter-institutional teams of lecturers to develop course materials that could be used by all of them. Many university, polytechnic and college teachers have had informal experience of such team teaching arrangements through part-time membership of Open University course teams. The inter-institutional course team might be used more generally in the preparation of teaching materials. Course development teams drawn from several institutions could help to overcome one of the main obstacles to the widespread use of new teaching technologies, the strong commitment of many academics to their own institutions, and their own individual approach to the teaching of a subject. Most lecturers would find it much easier to use a course package that they themselves had helped to construct.

Such course development teams could also serve a professional development function. Teachers from several institutions meeting to prepare course materials would inevitably discuss other issues related to the teaching of their subject. This could well be formalized, and a part of each course team's work could consist of discussion in workshops and seminars of the teaching of the subject more generally. We would hope that course development teams would normally include teachers from all categories of higher education institution. Initially it would be necessary for specially earmarked funds to be made available to establish course teams but in due course their success should enable them to be financed through normal channels.

PROFESSIONAL DEVELOPMENT

It is a commonplace observation that teaching in higher education is one of the few professions where no training in techniques is required of new recruits. One of the recommendations of the Robbins Report was that 'All newly appointed staff should have organised opportunities to acquire the techniques of lecturing and conducting discussion groups.' Most institutions have gone some way towards implementing this recommendation, and many have gone further and tried to encourage an awareness of the need for improved teaching amongst established staff. The majority of universities, polytechnics and colleges have units called, variously, teaching services units, teaching methods units, staff development units or professional development centres. However, such units have been particularly vulnerable at a time of financial cuts. One argument for discontinuing them is that the function of organizing opportunities for newly appointed staff to improve their teaching is likely to remain a small one. Whatever adaptations are made in British higher education, during the next decade there is unlikely to be recruitment on a scale that justifies any but very large institutions having specialist units devoted to the induction of new teachers. There will, however, be a continuing need for innovation, flexibility and adaptability amongst existing staff. This means flexibility in methods and organization of teaching as well as in course content and institutional structures. If proper use is to be made of rapidly changing new technology, there will need to be ways of keeping staff informed of new developments and practised in their use. Constant review and evaluation of teaching and the improvement of its effectiveness, rather than initiation of new staff into well-established teaching patterns, will be the main needs of the next two decades. In pursuing this aim there is a place for national co-ordination and for subject and discipline-based endeavours to improve teaching.

Teaching development units should collect and store information about teaching innovations, carry out evaluative research into the effectiveness of different kinds of teaching, appraise the teaching of individual departments and institutions and disseminate the results of this research and experimentation through courses, workshops and published materials. This is not likely to be done effectively if spread thinly over all institutions. There need to be three or four adequately staffed development units strategically placed throughout the country. The units should have an interest and involvement in both universities and public sector institutions. The risk that they would become self-serving groups of experts could be avoided both by locating them in higher education institutions, with their staff having some normal academic responsibilities, and by making them partly dependent on the sale of services. It is also desirable that their responsibility to the whole of higher education should be made explicit. Their broad programmes of work should be influenced by the needs of the system as a whole.

SUMMARY

The matching of teaching methods to student aptitudes and interests will become increasingly important as higher education establishments increase the diversity of their course offerings and admit more students without recent experience of rigorous academic secondary education. It is suggested that there should be more widespread experimentation with team teaching. The purposes of assessment are briefly reviewed and a study of the operation of the external examiner system is proposed.

Teaching performance should be given at least as much weight as research in any evaluation of lecturers and to help achieve this it is proposed that there should be regular reviews of individual performance based on self-appraisal. Three or four well-staffed professional development units should be established, strategically located to cross the binary line and to serve main geographic areas. Funds should be made available to allow inter-institutional course teams to come together to develop teaching materials in particular subject areas.

The capacity for rapid adaptation in response to technological change and the needs of the economy and society is especially necessary in areas linked to new information technologies. Institutions of higher education should aim to teach high-level generalizable skills, should maintain close contact with relevant branches of industry, and should give special priority to staff mobility in this area.

8

MARRIAGE OF CONVENIENCE BETWEEN RESEARCH AND TEACHING

ONLY CONNECTED

A higher education institution is a forum for the lively, inquiring minds of students and teachers. From this it is a short step to the claim that teachers need to maintain their minds at a constant state of readiness by permanent active involvement in research at the frontiers of knowledge. It is a short step, but one which leads from the solid ground of platitude to a quagmire of conflicting opinions, inadequate evidence and passionately held beliefs.

Research is essential for the well-being of a modern society. With its limited natural resources it would be suicidal for Britain to neglect to maintain its research capacity; to do so would be a sure path to long-term economic and social decline. This chapter does not discuss the value of research. Our concern is to explore alternative ways of formulating research policy and of allocating funds.

In *The Future of Research* Durham and Oldham state:

> 'There was a great deal of discussion ... on the relationship between teaching and research. The generally accepted wisdom in the past has been that the two are intimately related. This view was challenged, and most participants agreed that there was no evidence to support it. Some studies which have examined the issue have concluded that the reverse may be the case.' (Oldham 1982 p. 215)

It is remarkable that, despite the almost universally held belief of university teachers, it is hard to find solid evidence of any substantial complementarity between teaching and research. Considering the centrality of the issue, it has been the subject of surprisingly little empirical research.

A critical question is the extent to which involvement in research will increase an academic's efficiency as a teacher more than the other activities in which she or he could be engaged. Undoubtedly some Nobel Prize winners and Fellows of the Royal Society are excellent teachers, and in many universities and some polytechnics research performance counts for more than teaching performance in academic appointments and promotions. Thus senior staff act on the belief that success in research is associated with good teaching. We are not entirely convinced by this evidence. First, there is an element of circular reasoning in it. If academics who reach senior positions are those who are successful in research, naturally they tend

to give high priority to research when assessing the performance of their subordinates. Second, many students and academics complain about the emphasis that is given to research in academic appointments and promotions. Students are often severe in their criticisms of lectures that owe more to the research interests of the lecturer than to the needs of the student at a particular stage of a course. Third, the emphasis on research may result partly from the greater visibility of the immediate product of the research.

Research results are published and subject to intense peer-group evaluation. Appointments and promotion committees are therefore able to use them as an indication of the quality of thought and scope of interests of candidates. Teaching, on the other hand, is usually regarded as an intensely private activity between individual staff and individual students. There is often resistance to any attempts by senior staff to undertake systematic evaluation of teaching performance. It is to try to upgrade the prestige accorded to teaching that we have proposed (p. 78) regular evaluations of teaching performance.

Another claim is that excellent teaching can be undertaken only by people who have a first-hand acquaintance with the subjects they are teaching. If this means simply that a lecturer should think actively about his lecture material and not passively transmit the ideas of others, it presents few problems; beyond this, however, the claim raises some doubts. Modern specialization and compartmentalization of knowledge mean that there is often a substantial difference between the information an undergraduate student needs to have and the specialized research activity of his teachers. Indeed, one of the unsatisfactory features of some courses is that unco-ordinated specialist courses taught and examined by lecturers, each teaching from the standpoint of his own research interests, do not add up to a satisfactory undergraduate course. It may well be that excessive specialization (see Chapter 3) derives ultimately from the close links that are believed to exist between research and teaching.

Even if the claims of complementarity between teaching and research are partly true, and they *may* be, we find it difficult to believe that they apply to the same extent to all teachers in all subjects in all institutions. Certainly for some subjects, we would expect an acquaintance with current industrial, commercial or professional practice to have at least as much to contribute to teaching performance as publication of academic articles. Some teachers will be teaching large integrated undergraduate courses; and while we would expect such teachers to be mature, able scholars we do not see that current research activity is necessarily likely to be closely associated with ability to teach such courses well. All teachers in higher education should have teaching timetables and facilities that enable them to keep abreast of both academic and practical developments in their subjects, but it is not essential that most teachers in most subjects should themselves be currently active researchers.

A different issue is whether *institutions* need to have some individuals and groups active in research if they are to offer a lively intellectual climate for their students. One argument in favour of such a claim is that successful research establishments tend to be able to attract higher-quality staff than those where the prime concern is the more local one of teaching their own students. A slightly more tenuous argument is that, because of their national and international visibility, research establishments are more successful at attracting able students. This is certainly not the whole truth in the United States, where some of the most sought-after universities, Princeton being an obvious example, quite explicitly put undergraduate teaching above research.

There are complementarities, however, between teaching and research within institutions. Those with able researchers on the premises are more readily able to call upon them to contribute to appropriate parts of teaching courses. Another possibility is that successful research workers eventually make better teachers. According to this view, much of the research undertaken by younger staff is mainly valuable as extended academic training: fundamental knowledge of one part of the subject gives confidence in teaching all of it.

We find these arguments about complementarity within institutions more convincing than claims about the need for every individual academic to be actively engaged in research. However, there are also conflicts between research needs and teaching needs in an institution. One example is in the library. A good research library will contain single copies of everything that is published in the areas of knowledge with which the institution is concerned. A good undergraduate teaching library will hold a much smaller range of materials but will have many copies of basic texts. There are similar conflicts in the purchases of laboratory equipment, computing facilities and staff time. Unspecialized teaching often has low status in institutions where high prestige is accorded to success in research. Pastoral care, development of integrated courses and career guidance are very often better provided for in institutions which do little research. In general, research is likely to benefit from being concentrated so that those who are engaged in it can profit from specialized facilities and from interaction with others who are working in closely related areas of knowledge. Conversely, the benefits of teaching are likely to be greatest if it is widely dispersed.

We conclude that while there are complementarities between teaching and research at the level of the institution, research is not the only determinant of good undergraduate teaching and there is no reason why different institutions should have even approximately the same amount of research activity. Obviously research training needs to be closely linked to research. However, in much of vocational education and in areas which are not research-intensive we can see reasons why students might be better taught in institutions which are not distracted by claims that academic

research is the main priority of their teachers. There would be positive advantages for both teaching and research if many more staff were able to hold joint appointments in institutions with a different primary focus. Research workers from institutions that are research orientated should be able to contribute to integrated lecture courses, and academics whose prime concern is teaching should be able to spend some of their time in research establishments. Within this pattern there is a place for joint appointments between institutions, especially between teaching and research orientated institutions.

So far we have considered complementarity between research and teaching at the level of individual members of staff, and of institutions insofar as activity in research is seen as contributing to teaching performance. There is a reverse side of the coin. Is research done better in establishments whose prime concern is with the teaching of undergraduates? Again, we can find plenty of assertions but, despite the central importance of the issue, little empirical evidence. There are several reasons why teaching establishments might be particularly successful at certain kinds of research. It is often claimed that the discipline of preparing material for students and debating it with them can result in insights that would not be apparent in a specialized research environment. Both teaching and research require high levels of intellectual ability, and people who are good at teaching are quite likely to be good at research. There are also some complementarities in the use of equipment, although there is also competition, as we have noted. There are obviously some benefits in having research undertaken in the same institutions as research training, which is in many respects essentially an apprenticeship for research, and like all apprentices research students can undertake relatively cheaply some of the more routine tasks of the enterprise in which they are apprenticed.

FUNDING RESEARCH

These issues are more than academic logic chopping because the way in which they are resolved affects the allocation of resources. If the teaching performance of *individuals* is improved when they are active in research, then there is a case for the joint financing of teaching and research at all levels. Expenditures per student should make provision for all individual members of staff to have the time and the equipment to undertake research. If higher education were financed privately, it would mean that the fees paid by students should contain an element for staff research on the grounds that the quality of teaching would thereby be enhanced.

If benefit to teaching derives from having research activities based in the institution rather than from having all members of staff engaged in research, there is a case for financial allocations to institutions containing a component for research, but for research to be concentrated on activities in which the particular institution appears to have a comparative advantage.

This selective allocation might be made within the institution itself, or it might be made by an external resource-allocation agency. The advantage of the former is that those nearest the grass roots are most likely to be able to judge the activities in which the institution has an advantage. Against this, it is possible that such decisions are best made by specialists in the discipline or field concerned rather than by inter-disciplinary groups. Furthermore, the collegial nature of academic decision making may make it difficult for institutions to be both rational and selective in their internal allocation of resources.

If there are advantages for research when it is undertaken in teaching institutions rather than the other way round, this points to separate funding of research, with research grants containing some provision for the support of teaching. Higher education institutions might have a comparative advantage over other establishments in competing for research funds because of their other teaching activities, but there would be no case for financing research as a by-product of teaching.

The three ways of financing research, first, as an adjunct of all teaching, second, selectively in teaching institutions, and third, separately from teaching, are not, of course, mutually exclusive. Present arrangements for financing higher education establishments in Britain contain elements of all three.

At present, part of the UGC block recurrent grant is intended to give universities a firm base for research; this is supplemented by an equipment grant which is orientated mainly towards subjects with particular needs, encouraging development of centres of excellence in research. In the public sector there is no general provision of funds for research, but many polytechnics have been able with the help of their local authorities to develop areas of research out of their general income. On such a financial base, together with any other advantages that derive from their role as high-level teaching institutions, universities and polytechnics are able to compete on favourable terms for funds from research councils, charitable foundations, government departments, industry and commerce to cover the direct project costs of specific research activities.

A question for the future is whether changes are needed in the balance between these three forms of funding. In our view there are grounds for a shift away from the inextricable mingling of funds for research and teaching implicit in the present system of UGC support, towards a more selective approach in which funds allocated for research are distinguished and accounted for separately from those for teaching. The evidence for complementarity between research and teaching at the level of individual members of staff is at best inconclusive. Beverton and Findlay (1982) show that research suffered particularly severely during the relatively mild financial squeezes of the 1970s. This casts some doubt on the ability of universities to protect research when funds are scarce. It is too early to make a judgement on the outcome of the severe financial cuts following

the UGC letter of July 1981, but preliminary indications are that universities are being somewhat less selective and discriminating in their cuts than the UGC wished.

Another reason for separating the funding of research from that of teaching is that it would help to clarify the comparisons of average costs between universities and other institutions of higher education. We believe it is axiomatic that the financial provision for students following similar courses should be the same, whatever the type of institution in which the course is taken.

There are two ways in which research funding in universities can be separated from grants for teaching. One is for the UGC to give separate allocations for teaching and research; the other is for a greater share of research funding to be channelled through the research councils with their more sharply focused allocation criteria. In practice this would mean that research council allocations should cover the full costs of research rather than be based on the assumption that equipment and overhead administration are already provided out of the UGC grant. In Chapter 10 we explain why we prefer the second alternative.

RESEARCH TRAINING

After being virtually ignored in recent years, postgraduate education is now the subject of much concern, and three important and relevant official reports were published in 1982 (Swinnerton-Dyer 1982; Rothschild 1982; Merrison 1982).

Research training is, of course, only a relatively small part of the whole of postgraduate education. In 1980/1, out of the 48,000 postgraduate students in universities, fewer than half were registered for research degrees.

A fundamental current problem with research training in British higher education is that often neither students nor teachers have a clear idea of their specific aims. Rudd (1975) showed that the substantial majority of research students in the 1960s hoped for an academic career. For a few years in the 1960s most of them were able to realize these hopes. The very small number of academic appointments currently being made means that postgraduate students today who aspire to academic employment are unlikely to have their aspirations met. To discover that the rewards for several years of intensive, lonely PhD study are uncertain and low is apt to demoralize all but the most dedicated research trainee. This is probably one of the reasons for the low rates of thesis completion which have become a matter of considerable concern to some research councils.

Durham and Oldham (1982) recommend a reform of the PhD which would have the effect of making it rather less orientated towards a career in academic research. Swinnerton-Dyer (1982) made several recommendations which had the same effect. He also proposed improvements in the procedures by which research topics are chosen, in the selection of students for research training, in the methods of supervision and in the monitoring

of students' progress. Rothschild made similar points rather more forcibly with regard to social science research training. We support such recommendations, and firmly believe that the normal pattern of PhD study should not be that of lone scholars desperately trying to accumulate 100,000 words by striving to boldly go where no man has gone before.

However, from a long-term perspective we do not believe that any of the 1982 reports really got to the heart of the problem. Different criteria are needed to determine the size and pattern of provision for research training. We are not convinced that Swinnerton-Dyer really justifies his conclusion that 'It is virtually impossible to adopt a manpower planning approach to postgraduate numbers because of the difficulties of estimating scientific or economic/social change on the one hand and transferability of skills between subject disciplines on the other.' It is clearly the case that ten and twenty-year forecasts of the employment opportunities for highly qualified manpower are liable to considerable error. This is, however, to miss the point. Whether manpower planning is worthwhile depends not on whether the forecasts are liable to error, but on whether the outcomes are in a real sense better than they would have been if no forecasts had been made at all.

If provision of postgradute training places is not made in accordance with some estimates of future employment opportunities, the alternatives are to base them either on student choice or on the research interests of academics. Student choice is likely to be heavily influenced by current market conditions, which are likely to be a worse guide to future employment than even not very accurate manpower forecasts. The projections of individual students can be self-defeating, and violent fluctuations in career prospects can occur as first one subject, then another, becomes fashionable. It is interesting that in the proposal following his rejection of manpower planning Swinnerton-Dyer recommends that 'Post-graduate numbers should not be cut back when there is high unemployment for them because they will be needed when the economy picks up.' We endorse this claim, but we would consider it to be a quite respectable manpower forecast. That the provision of research training should be linked to the current research interests of academic staff is more plausible. However, the research interests of most people are influenced by the research funds that are available and this in turn is influenced by perceptions of economic and social need.

Research training is likely to be most useful if it is linked directly to the needs of research and research-intensive occupations. We would achieve this not by attempting to make detailed long-term forecasts of the need for every type of research-trained manpower; rather, we would link financial provision for training for research with employment in research and other occupations requiring research-trained staff. In effect this would mean that all research trainees would be part-time students and would secure part-time release from their employment to pursue their research studies. The idea can be illustrated most easily by considering

how it might operate in the case of recruitment to university teaching. Initial recruitment of staff would occur after they had obtained their Honours or Masters degrees. New recruits would have part-time appointments which would become full-time and permanent after successful completion of a period of probation. One requirement for successful completion of the probationary period would be the award of the PhD. Part-time probationary recruits would be teaching and laboratory assistants rather than full lecturers. Similar conditions might apply in other sectors of specialist enployment.

Another route to the PhD would be linked to research projects. Research grants from public funds would contain provision for research training. Reports to research councils on completed research would need to include an account of the research training provided and any benefits obtained by the research workers. We recognize that such a scheme might provide few opportunities for research training in the arts and humanities. This is one of the reasons for the proposal (Robinson 1982) for the establishment of an arts and humanities research council. In addition to the formal financial provision for research training along the lines indicated above, we would hope that some students would enrol for part-time research degrees on their own initiative; and we think that the research councils should make provision for the payment of fees of such students, particularly if their research is linked to their employment.

SUMMARY

Despite the existence of some outstanding researchers who are excellent teachers there is little empirical evidence of any close relationship between research capability and teaching performance among individual academics. There are conflicts between the claims of teaching and research in the purchasing policies of libraries and in the time of academic staff. It is essential that staff teaching loads throughout higher education be such as to enable individuals to engage in scholarship and keep up with recent developments in their subjects. However, once provision is made for this, financial provision for research should be separately identified from that for teaching. This amounts to a modification of the dual funding arrangements in universities. The separate funding of teaching and research might be achieved either by an identifiable block grant being made for research within UGC grants or by the full costs of research, including overheads and provision for research training, being covered by research council grants.

Provision of research training should be linked less to the demands of individual students and more to the pattern of research being undertaken and the needs of industry and society. Most research students should be part-time, although many of them would be simultaneously employed as teaching and research assistants.

9

MODELS OF MANAGEMENT

Becher and Kogan (1981) distinguish between four structural levels within higher education — individuals, basic units or departments, institutions and central authorities. Next they 'separate two components in the everyday life of the academic world which are not in practice sharply distinguished. The first of these relates to the monitoring and maintenance of values within the system as a whole.' This they designate the 'normative mode'. The monitoring and maintenance of values involves academic authority, resource allocation and legal authority. 'The second, in contrast, refers to the business of carrying out practical tasks at different levels within the system.' This they call the 'operational mode'. In other words, the operations of the higher education system can be divided into those concerned with carrying out teaching, research and public service and those which create the conditions in which they can be carrried out effectively and efficiently. These ideas underlie the analysis developed in this chapter.

DISCIPLINES

Clark (1983) puts the discipline at the centre of academic life. It is the discipline, a shared approach to an area of knowledge, which integrates individual fragments of knowledge into a coherent teaching and research programme. A discipline, like a church or a political party, imposes rules on its disciples. Those who are more practised or skilled in the discipline acquire authority over others who are less experienced, less dedicated or less able to comprehend its mysteries. Pressure for some measure of regulation of discipline-based academic activity arises from three sources: definition of boundaries, regulation of relations with other disciplines and interpretation to the rest of the world. There is a need constantly to define and re-define the boundaries of a discipline. Many people who devote their lives to the pursuit of intellectual activity feel more comfortable if the bounds of their concerns are defined and shared with others. The discipline of the discipline can be more readily enforced if there is a clear understanding of its scope. The invisible college of scholars serves a purpose in many respects similar to the annual conferences of a political party or the great Councils of the Church. Doctrine is defined, problems are thrashed out and authority is established and transmitted. Those who claim to be mathematicians have the assurance that other mathematicians see them as such. This is, of course, particularly useful to young people trying to establish an academic career.

One function of academic co-ordination is to regulate relations between disciplines. This is often a matter of competition for resources. Members of a discipline tend to support each other against outsiders. When resources are scarce members of embattled disciplines will often withdraw from exposed positions into territory that is known to be defensible. More generally, however, the boundaries between disciplines are fluid. Any discipline is composed of many 'schools' and sub-disciplines. The map of knowledge is like a weather map of constantly shifting isobars rather than a geological map of the contours of solid features. Unless there is some regulation there can be fierce demarcation disputes, which cease to be mere intellectual games when significant resources or the careers of individuals are involved.

Another function of academic co-ordination is to interpret the disciplines to the outside world. This can be seen as determining which real problems are susceptible to the approach of a philosopher, which to a chemist, which to the two of them co-operating with each other, and so on. However, the aspect of academic co-ordination that is of most interest to the outside world is the regulation of what is taught to students under the labels of the various disciplines. At its simplest, students and those who will employ them afterwards need to have some assurance that, for example, what they learn in acquiring an economics degree in one department at one time bears some relation to a similarly named degree in another department at another time. Public concern about academic standards is sometimes a concern that this is not so. Whether the concern is justified or not, its existence implies that some aspects of academic co-ordination are not being properly performed.

A discipline-centred approach to academic management and co-ordination has dangers. It can mean over rigid compartmentalization of knowledge and the lack of a problem-solving approach in teaching students. Students can be initiated into the arcane mysteries of the discipline rather than using it, along with other areas of knowledge, to solve intellectual or practical problems.

BUREAUCRACIES

Academic leadership supported by centralized management structures and an effective bureaucracy can mean efficient resource use and rapid response to a changing environment. Bureaucratic procedures can also protect academic quality by ensuring that resources are adequate for the tasks which operating units are asked to perform. Bureaucracy also has disadvantages. For example, it may limit the testing of proposed innovations in debate with colleagues, which is a valuable part of the process of selecting ideas which are worth pursuing. Part of the social function of higher education is to help society decide what change is worthwhile. The process of debating change and trying to build coalitions to promote it helps to distinguish what is worthwhile from what is frivolous or merely opportunistic.

There are particular problems in organizations where there is specialist expertise low down the bureaucratic hierarchy. The relationship between managers and managed in a bureaucracy tends to be one of conflict. Students, teachers and research workers naturally bend the rules to serve their own interests and managers, with equal justification, make new rules to close what are seen as loopholes. If professional expertise is concentrated near the base of the bureaucratic pyramid the rules themselves must be largely a product of the consent of those to whom they apply. If this consent is not forthcoming the organization risks fragmenting into competitive interest groups. In an academic institution this may result in staff adopting the methods of industrial confrontation, or it may mean fragmentation by subject and discipline, with loyalty given to departments or research centres rather than to the institution.

COLLEGES

In contrast to the academic employees of a bureaucracy, the members of a college take their own collective decisions, which have an authority legitimized by consensus, or at least compromise, amongst those to whom they apply. Collegial styles of management are possible only in institutions which have considerable discretion over resource allocation. This frees them on the one hand from dependence on consumers of their services and on the other hand from controlling authorities. There are reasons to suppose that any organization which depends on high-level professional skills operates most efficiently if there is a substantial measure of collegiality in its management procedures. However, the argument is not all on one side. Vested interests can cloud professional judgement. Adam Smith, who went to Oxford in the early 1740s, was shocked by some of the results of such academic freedom in resource allocation.

> 'If the authority to which (the teacher) is subject resides in the body corporate, the college or university, of which he himself is a member, and in which the greater part of the other members are, like himself, persons who are, or ought to be, teachers, they are likely to make common cause, to be all very indulgent to one another, and every man to consent that his neighbour may neglect his duty provided he himself is allowed to neglect his own. ... In the University of Oxford, the greater part of the public professors have, for these many years, given up altogether even the pretence of teaching. ... The discipline of colleges and universities is in general contrived, not for the benefit of students, but for the interest, or more properly speaking, the ease of the masters. Its object is, in all cases, to maintain the authority of the master, and whether he neglects or performs his duty, to oblige the students in all cases to behave to him as if he performed it with the greatest of diligence and ability.' (Smith 1776)

Despite Adam Smith's concern and a number of Royal Commissions and Committees of Enquiry into the Universities of Oxford and Cambridge, the collegial model of university management has proved durable and formed the basis of most university charters and the financing arrangements for universities through the UGC at least up to 1981. Essentially, the block grant system of the UGC is one in which central government provides nearly all the recurrent income of universities but the latter retain considerable autonomy in the allocation of their grants. Academic influence was buttressed in the public sector by the Weaver Report (1967) on college government, which gave to academic boards many of the powers already held by university senates and was designed to protect academic staff both from their local authorities and from autocratic principals or directors.

The constituencies amongst which collegial consensus must be achieved vary. In some institutions every member of the academic staff has an equal voice. In others, consensus-building is confined to those holding senior posts and tends to be representative of departmental rather than individual interests. In others, there are elections for places on the critical committees. In most, students now have some representation; in a few, provision is made to take account of the views of non-tenured academic staff; and in some, non-academic staff can take part.

Combinations of collegial and bureaucratic procedures can bring the disadvantages of both. If differences of interest and opinion are wide, it is probable that even though compromise is reached many individuals and groups remain disaffected. Compromises can be reached only when they do not upset any existing balance of interests and since change almost invariably affects the balance it becomes almost impossible. This is particularly debilitating when lack of overall growth means that expansion of some activities can occur only if there is reduction in others. This suggests that in an environment where adaptation without growth is necessary, collegial forms of management are most likely to be successful in institutions which do not comprise too wide a range of interests. The greater the variety of interests within an institution, the more it is likely that compromise can be achieved only around the existing balance of power, and the more likely it is that some individuals or groups will see themselves as being in conflict with the institution as a whole.

The problems of consensus-building have often been illustrated in academic novels. The departmental meeting, the college council, the senate are standard literary set pieces. Constructing a consensus is time-consuming and erratic in its outcomes. It can sharpen conflicts, or it can lead to mutual toleration of incompetence and to a neglect of the views of those who are not part of the consensus. Can institutions tolerate such a way of managing their affairs in face of the challenges of the next fifteen years? Would a university or polytechnic not be more adaptable and responsive to changing needs if there were more power at the centre to take and enforce decisions on behalf of the whole institution? Some authors of papers

in earlier reports of this programme of study have shown impatience with the time-consuming processes of consensus-building and a hankering after tighter managerial control directed towards specific objectives. However, there is little empirical evidence to support their claims. Indeed, as far as can be ascertained at present, consensual forms of government in most universities have proved quite resilient in coping with the unprecedented financial cuts of 1981 and 1982; and a substantial re-shaping of the system has begun by consent, albeit consent obtained under duress and not necessarily consonant in every detail with the priorities of those who take central decisions about resources.

When resources are not increasing, styles of consensus management must differ from those in a period of expansion. Where innovations do not damage the vested interests of others, consensus can mean simply the aggregation of individual claims. When resources are scarce, decisions must be consciously collective. They must be taken in the light of a responsible assessment of their possible implications for all in the institution. Collective decision making in a period of adaptation without growth requires high-quality active management, to ensure both that decisions are reached and that once taken they are implemented. For it to work, everyone involved should be alive to the need for change and vested interests should not be in a position to block all reforms.

MARKETS

The weaknesses of the bureaucratic and collegial models of organizational behaviour have led some observers to propose the market as a mechanism for by-passing many of the difficulties (see, for example, Lindley 1981; Wagner 1981; Morris and Sizer 1982; Maynard 1982; and Shattock 1983). The intellectual attraction of the market is that resource-allocation decisions are taken out of the hands of bureaucrats, politicians and academics. They are determined instead by markets, which have the virtue of being fragmented into many independent decision-making activities. Both academic and financial co-ordination are decided by consumers of academic services.

Markets can also be simulated. There are several examples of the internal funds of a university being allocated in the form of rewards for successfully fulfilling some of the institution's major objectives. The most well-known example is Cranfield, where each separate department is in effect a quasi-commercial concern able to retain income it generates subject to 'taxation' by the institution. Several universities have adopted a similar procedure in the sharing of funds earned from the recruitment of overseas students following the change in regulations in 1980. In any such arrangements it is not easy to distinguish services which need to be provided centrally by the institution from those which should be purchased by the basic units. Could the basic units be trusted to devote a sufficient share of their income for library purposes, for example? It is hard to see

why they should be any less likely to do so than the institution as a whole. but the conventional wisdom is that library provision must be a central service. There are also general administrative functions concerned with the preservation of the institution as an organizational entity which it is hard to envisage being adequately performed if these have to be purchased incrementally by operating units. Internal markets for resource allocation are certainly an aid to institutional management, but equally certainly they solve only some of the problems.

The main advantage claimed for the market is the incentive it provides to respond to changing *external* circumstances. This can, however, result in deterioration of quality where it is difficut to identify specific outputs and where purchasers of services are not well informed about the technical specifications of the product they are buying. This danger will be particularly acute when institutional survival is at stake and institutions need to compete fiercely to fill their capacity.

In *Access to Higher Education* Martin Trow, drawing on United States experience, has pointed to the dangers of inadequately informed students being courted by institutions whose survival depends on success in the market.

> 'Take, for example, the elaborate, indeed sometimes desperate, efforts of many, especially weaker, institutions to recruit students, whether for their tuition fees or for the enrolment-driven formulas by which most public institutions are funded. Most institutions do not confront the question of whether the strenuous recruitment of some of these students serves the interests of the students as well as those of the institution. Sometimes the justification for these activities draws on the widespread American belief (only now beginning to be questioned) that, on the whole, people ought to get as much formal education as you can persuade them to sit still for; sometimes this is combined with the market's classic disclaimer of moral responsibility — *caveat emptor*. But whether the market is for warm bodies to meet budgets, or for black or brown bodies to meet affirmative action targets, it is clear that there is not a perfect correspondence between the interests of the recruiting college or university and the recruited student. Important moral issues arise in this area. One can question the institutions' responsibility in recruitment for what might be called 'consumer protection', or, after students have been admitted, for providing counselling and other support services. The 'revolving door' has moral dimensions, as well as academic and financial implications, for colleges and universities. Grade inflation and the lowering of demands and standards to attract students are among the other pathologies of colleges and departments that are acutely threatened by the decline in enrolments and the fear of administrative action or budget cuts. There are similar dangers on the research side.' (Trow 1981)

INSTITUTIONAL GOVERNMENT

Some legitimated central authority is clearly necessary in any social organization if it has control of significant financial resources. Some legal entity must have ultimate responsibility for finances, for employment of staff, and for carrying out commitments to students and sponsors of research. There must be some court of appeal in the event of disputes between members of the institution. The body which has these powers is clearly in a position to control the life of the institution in considerable detail if it so wishes. Control over finance in particular gives the power to exert a strong influence over which activities will flourish and which decay.

There is no standard pattern by which such authority is exercised in British higher education and no standard way of exercising it. The charters of most universities and the articles of government of most public sector institutions make provision for a predominantly lay body which has ultimate legal and financial responsibility for the institution. Governing bodies perform two main functions: as ultimate source of legal and administrative power *within* the institutions, and as advocates for their institutions in the *outside* world. There was a tendency for both to wither during the period of rapid growth and relatively abundant resources. With only a few exceptions, governing bodies have been willing to delegate much of their power to internal academic bodies. Membership of some university councils has tended to degenerate into a pleasant social obligation, while the main role of some public sector governing boards was to receive the decisions of local authorities whose members dominated them. The intercessory function of their members became less important when the great bulk of institutional funds began to come from central government, allocated according to criteria of national policy.

The Robbins Report contributed to this inactivity of governing bodies. While endorsing the value of universities having access to the initiative and wisdom of lay members on their governing bodies, the Committee denied these members any role in the central affairs of the institution. 'It is not part of its (the university council) function to interfere in the internal academic organization, still less in matters of syllabuses and curricula' (Robbins 1963 para 666). We take issue with this conclusion. The abdication of power by the governing bodies of the institutions is regrettable. It would be in the interests of colleges, universities and polytechnics, in academic as well as financial arrangements, to take advantage of the expertise of members of the public who have wide experience of affairs outside education and who are broadly in sympathy with the aims of the particular governing body they agree to serve. Higher education institutions would benefit if lay members of governing bodies were invited to take part in some of the main academic committees of the institutions. If members of a university senate or polytechnic academic board are unable to convince a few well-informed, sympathetic lay persons of the value of any academic venture, there may be a case for second thoughts. We would not

suggest that lay persons should have veto powers on academic matters; we do think they have a useful role to play. In a period of financial stringency those who have ultimate responsibility for allocating resources will take their decisions with more understanding and sympathy if they have some direct involvement with the real work of the institution.

An unfortunate by-product of the Robbins attitude to governing bodies is that it inhibits their members from advocacy on behalf of their institutions. If governors and council members are not well informed about an institution's central activities, they are not in a good position to plead on its behalf in parliament, in council chambers, in industrial boardrooms or trade union meetings. Universities in particular may have lost more than they have gained by keeping their councils in their places. In a period when they desperately need them, many of their most obvious allies have been encouraged to retreat into apathy. Council members who have been ignored for years and are suddenly asked to take part in the formulation of a survival plan just after the institution has suffered a severe budget cut may be excused cynicism.

RESOURCE ALLOCATION AND ACADEMIC CO-ORDINATION

It is possible to conceive a higher education system with no formal organization. Individual students would purchase the time of individual teachers through individual negotiations. However, as soon as several students wish to pursue coherent programmes of study with the help of several teachers there must be academic co-ordination, and there must be some form of financial control. There are two basic elements that determine academic structures. One emanates from the orgnization of knowledge and the other derives from the provision of resources. Academic organization and funding mechanisms overlap; resource allocation should be informed by academic criteria and no academic priority can be independent of resource availability. However, resource allocation and academic co-ordination are different functions, and different criteria are needed to evaluate each. In any discussion of funding arrangements it is important to remember that their function is to channel resources so that effective learning can take place.

Academic co-ordination is rooted in the processes of individual learning. Appropriate organizational forms are determined by the nature of the diverse range of academic activities in higher education and, in general, they are more robust the nearer they are to essential learning processes. Departmental and quasi-departmental structures are very durable because these are the basic units where individual teachers and students interact. Institutional and inter-institutional arrangements are much more heterogeneous, with their precise form depending on historical, political and economic circumstances. The more remote is an academic co-ordinating activity from individual students, teachers and research workers, the less robust it is likely to be and the more its precise form is likely to be determined

by arbitrary criteria such as custom, inertia, interplay of interests and bureaucratic convenience. Almost the exact opposite is true of resource-allocation mechanisms. Their viability derives from their control over resources, which means their capacity to generate income and use resources efficiently in line with organizational objectives. In publicly financed higher education this means proximity to representative political power.

Amalgamating these two elements, we arrive at two fundamental organizational structures in higher education. One is the basic unit or small group of teacners co-operating to produce coherent programmes of study or research in particular subjects or disciplines. The other is a funding mechanism with the political power to determine priorities for resource allocation. However, academic co-ordination needs more structure than can possibly be provided by the unconstrained interaction of specialized units. Conversely, in a country the size of Britain, their number is so large that no single central resource-allocating body could possibly exercise control over all of them without a considerable bureaucratic structure, which, even if it were effective, would be unlikely to be efficient.

Intermediate mechanisms of regulation are determined largely by context. Their function is the harmonization of academic co-ordination, which must derive ultimately from the interactions of students and teachers, and resource planning, which derives from the need of government to ensure that properly established political priorities are met. If learning processes come first, initiatives derive from individual students and teachers and are integrated by departments and institutions and other intervening agencies till they aggregate at the national level into a higher education policy. Conversely, if higher education is structured so as to respond to political priorities, the process is reversed. Funds are passed down a hierarchy in such a way that the learning processes undertaken accord with government views of national interests.

The difference between these two approaches to higher education planning and policy appeared in several forms during the course of this programme of study. For example, Sizer (1982), in discussing resource allocation, refers to 'top down' and 'bottom up' models. A related distinction is that made by Trist (1972) between disciplines and domains of knowledge. Disciplines are rooted in the epistemology and structure of knowledge, while domains depend on the way the external world is organized. Thus, disciplines demand that the organization of academic affairs be rooted in the nature of knowledge itself and hence develop out of the internal life of academic institutions. Domains derive from 'problems' and their motive force is ultimately the needs of the real world. Resources need to be allocated to solve these problems.

A financing mechanism is both a means of allocating resources so that learning can occur and a channel for messages between providers and users of finance. Budget estimates and accounts of expenditure are among the most useful indicators of the intentions and performance of an

institution or sector.

Diagram 2 shows six possible arrangements for the finance of academic institutions and predicts the likely institutional behavour under each. First is the 'free' market. There are a variety of sources of finance, and the basic units of the institutions sell their services to them. Each basic unit receives finance from several sources and each source of finance can purchase services from more than one institution and basic unit. Within the institution much of the power rests with the basic units; the central service activities are weak and diffused. No single organization can control the behaviour of an institution or of the higher system.

Second is the college. The institution controls its own sources of finance, and the boundaries between operational and normative activities and administration are blurred. Resource allocation is determined by competition and coalitions between individuals and small groups within the college. There is no need for financial regulation from outside. Co-ordination may be thought desirable for academic reasons, but not in order to bring about any external notions of efficient resource allocation. Colleges determine their own priorities and to outsiders it is not always possible to distinguish academic interests from the self-interest of academics.

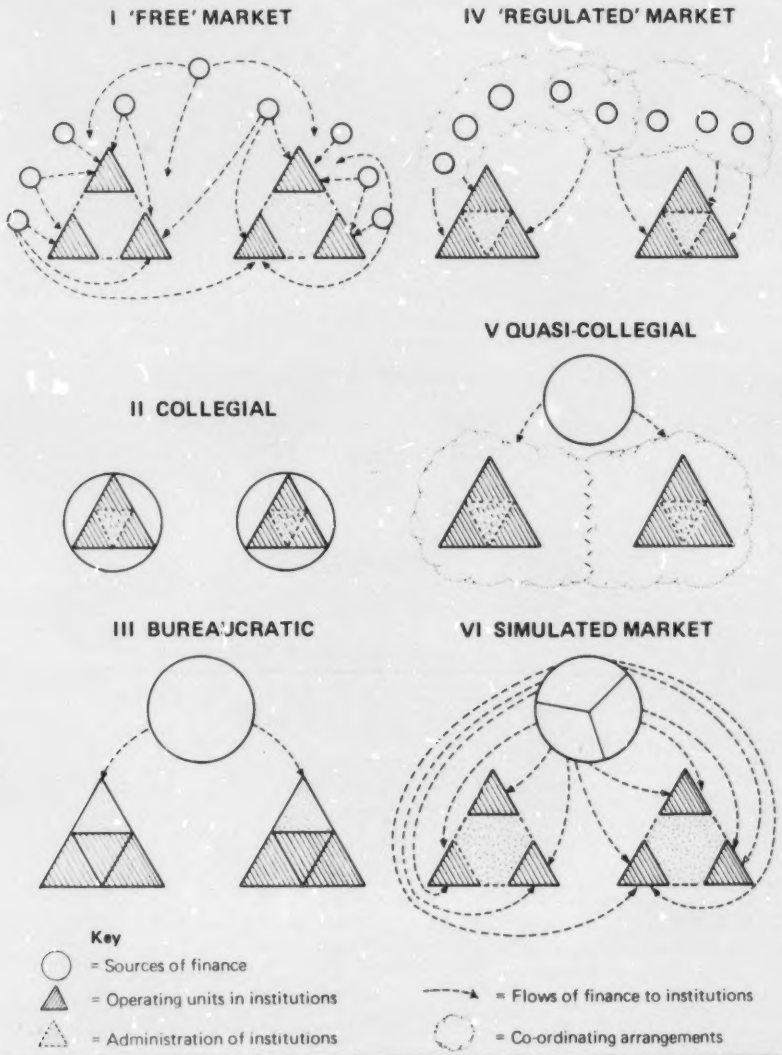
Third is bureaucracy. The operational and the normative modes are sharply distinguished. A central funding agency allocates funds to the administration at the top of the organizational pyramid, and these are passed down to operating units according to the institution's own bureaucratic rules. At each level the superordinate body is able to exert powerful influence over the behaviour of the subordinate body. An important criterion in appraising the number of levels in the bureaucracy is the compromise between, on the one hand, remoteness and bluntness of political accountability if there are too many intervening layers of decision making and, on the other, the excessive concentration of power if an allocating agency has detailed responsibility for a large and varied collection of operating units.

On the right-hand side of the diagram are three possible modifications of these pure organizational forms. In the 'regulated' market regulations control relations between purchasers and suppliers of academic services. In the quasi-college the central funding body aims to encourage collegial behaviour by giving institutions un-earmarked grants. Finally, the central funding body can simulate market behaviour by allocating funds directly to operating units according to several different criteria. These six examples do not of course exhaust the possibilities. No real funding mechanism and no organizational behaviour is ever simple. However, the diagram does draw attention to relationships between funding arrangements and organizational behaviour in academic institutions.

SIMULATING MARKET MECHANISMS

In its final report the Carnegie Council on Policy Studies in Higher

DIAGRAM 2
Different ways of financing academic institutions and their effects on organizational behaviour



Education in the United States recommended that the problems of academic co-ordination and the maintenance of diversity in a period of resource stringency are best resolved through the interactions of a large number of independent institutions subject only to a measure of academic quality control (Carnegie 1981). Free market solutions to the problem of matching top-down financial planning to bottom-up academic co-ordination circumvent the conflict between them by avoiding the need for a central financial authority. They prevent academic self-interest from dominating resource allocation because a failure to respond to the demands of consumers will mean failure to survive, and they provide little room for bureaucracy because the market demands continuous response to a changing environment. The market also avoids the difficult technical problem posed by the outputs of higher education being almost impossible to define and measure. The 'output' becomes what consumers are prepared to buy. Effectively the power, which is in the hands of the politicians and bureaucrats in the top-down model, and in the hands of academics in the bottom-up model, is possessed in the market model by students and other consumers of academic services.

The argument in favour is the general argument for consumer sovereignty. Attiyeh (1974) made the case thus:

> 'If universities operated under the forces of the market, they would be considerably more responsive to the preferences of the consumers of their services. If students desire a particular form of education and are willing to pay its cost, they would have no problem in bringing universities to provide it. Similarly, if the government wishes to purchase more research services, it can persuade the universities to supply them by offering to pay enough to make it profitable for resources to switch from alternative uses. ...'

One issue in appraising proposals for market arrangements is the extent to which it is desirable for such power to be in the hands of individual students. A free market would be inequitable: only students with substantial incomes would be able to afford to participate. A free market would be inefficient: students' lack of information and the difficulty of reversing decisions once they have been taken contravene the assumptions of free market theory. If markets are to operate properly, consumers must be well informed about the likely outcomes of their purchases, and they must have the opportunity of learning from experience in making subsequent purchases. Decisions about higher education by any individual are usually irreversible and made once only. The ultimate outcomes of a particular choice are not apparent for a considerable length of time, are usually mingled with the effects of many other decisions and are influenced by the decisions that were taken at the same time by large numbers of other students. The essential information feedback of efficient markets is absent.

Some of the weaknesses of a free market can be ameliorated by interventions. Markets can be regulated. Financial support for needy students reduces the inequity of dependence on family income; public funds can avoid the problem of support for basic research. Advocates of the market claim that the provision of advisory and counselling services independent of the institutions would enable students to make better-informed decisions about choice of courses. However, even proper counselling cannot completely overcome the problems of the irreversibility and interdependence of individual decisions about higher education. It is unlikely that higher education provision entirely determined by the wishes of large numbers of individual students would meet their real long-term needs, or those of society as a whole, any better than a system in which critical decisions are taken by political bodies on behalf of society as a whole or by academic bodies with access to expert knowledge of the processes involved.

Market behaviour can also be simulated however. By determining the eligibility for financial support and the amount and the conditions on which it is available, public authorities can have a strong influence on the activities of higher education institutions without intervening directly in any of them. *One* form this might take would be in the channelling of financial support for higher education through students rather than directly to institutions. More generally, many of the positive aspects of markets can be simulated by creating a multiplicity of mechanisms through which funds are made available. No university or college or polytechnic need receive its finance predominantly from a single source and thus be completely dependent on judgements made by that agency.

A NEW APPROACH

In considering improved forms of co-ordination our aim is to develop a network of institutions that is widely and equitably accessible; that offers students diverse and flexible, but well structured courses; that is excellent over a wide range of teaching, research and public service; that is responsive to changing economic and social circumstances; that is demonstrably efficient in its use of public funds while at the same time protecting legitimate claims to academic autonomy; that provides good career prospects for able people; and that is able to do all these things by adaptation without growth. The co-ordinating machinery for a higher education system that meets these specifications will have components of top-down bureaucratic, bottom-up collegial and interactive market models. We can usefully start with the basic units, where the contact between individual teachers and individual research takes place. The higher education system is an aggregation of basic operating units. These must be flexible, adaptable, accessible, responsive, and autonomous if the system as a whole is to have these attributes. But the autonomy of individual units must be circumscribed. Each must fit into the academic pattern of the institution of which it is part and conform to the standards of the national and international

college of scholars in its discipline or area of knowledge. No academic and no department is an island, but it is helpful to start from the premiss that, if claims to academic freedom and autonomy are valid, they must apply at the level of the basic unit more than at any other. The department should have some independence of its own institution, of other contributors to its discipline, of political pressures, and of the demands of its own students and research sponsors. Its members should be free to undertake and regulate their teaching and research within bounds set by the legitimate interests of other groups. In practical terms departments and other basic units should have some financial independence and some academic autonomy. They can be constrained to ensure that their activities are not damaging to the aims of their institution. In an institution committed to the provision of multi-disciplinary courses it would clearly be intolerable for a particular department to insist on offering courses that were intelligible only to students who were specialists in that discipline. Teaching and research programmes should also be open to scrutiny by peers in the same discipline or subject from outside the institution. Departments should be subject to periodic review of their teaching and research programmes. The primary purpose would be to provide information to the department about its standing in the discipline and to suggest to it ways of improving its academic programmes. However, relevant information should also be supplied to the institution and to funding agencies to aid resource-allocation decisions. If this is not done, institutions and funding agencies will use their own quality criteria and these may be arbitrary from the perspective of the discipline or subject.

The second level of academic organization, the university or polytechnic or college, is primarily an administrative unit — a convenient grouping of basic units. It does not have the intrinsic claims to existence of either the basic units beneath it or of the funding bodies above it. Operationally the institution is essentially the first of a number of resource-allocation bodies that link the basic units to the sources of funds. The establishment of a general academic ethos, the co-ordination of resources and the provision of certain services are often functions of the institution. However, the role of institutions varies widely. The university administration and central service agencies in London University differ considerably from those of small specialized colleges of higher education. The academic autonomy of the institution is harder to justify on fundamental principles than that of the individual scholar or small group of scholars working together. However, institutions, collegially governed, can help to shield the independence of individual scholars and their basic units. At the same time, the institution offers an acceptable focus for outside pressures moderating national social and economic needs in accordance with agreed academic criteria.

The administration of a higher education establishment is thus subject to three forces. First, the university or polytechnic or college is a haven for the individual scholar and should provide an atmosphere conducive to free inquiry and professional autonomy. Second, the institution is a means of

arriving at academic consensus. Third, the institution is a significant channel for contact with the outside world: particularly with regard to funding, but also in respect of groups such as employers who can claim an instrumental, as opposed to an intrinsic, professional interest in the content and structure of courses. The university or polytechnic or college should combine these three pressures into a corporate identity which defines the place of that particular institution in the spectrum of higher education activities. This identity need not be static. A significant new discovery by one of its research groups, for example, is likely to have an effect on the corporate image of an institution. Serious long-term unemployment amongst large numbers of its graduates should influence its corporate policies, although in practice at present this is most likely to happen only through its influence on student demand for courses.

The House of Commons Select Committee (HC 1980) recommended that each institution of higher education should prepare for itself a statement of its present position within the spectrum of higher education and the position it aspires to hold five and ten years hence. The process of preparing such development strategies would involve an assessment by the members of each institution of its fundamental purposes and its place in the spectrum of higher education. Periodic appraisals of its comparative advantages and disadvantages in each of these activities in a long-term perspective are invaluable for any college or polytechnic or university.

Such statements of long-term policy would define the institution for students who enter it. The prospectuses of polytechnics, colleges and universities are showing an increasing resemblance to promotional material rather than offering students a reliable basis of information for selecting the courses which would be appropriate for them. It is not without significance that in many institutions students themselves are preparing alternative prospectuses to counter some of what they see as the misleading propaganda of official information. Obviously, formal statements of development strategies could not replace college prospectuses, but the prospectuses themselves should be written in the light of clearly defined objectives set by each institution for itself. The development strategy statement would also locate the position of that institution with regard to the funding bodies. If there is to be a diversity of funding bodies, it is particularly important that the role of each institution should be clearly defined.

Long-term development plans need to offer both stability and a capacity for evolution. They should be subject to review from time to time. Certainly every institution ought to take a penetrating look at itself at least once every ten years. Statements of development plans should not in themselves prevent institutions from engaging in other activities, but they should provide a background against which proposals for new initiatives can be assessed.

So far we have attempted to derive a role for the institutions from the need to nurture the professional work of individual scholars and the

basic units in which they work. We now turn to the other fundamental feature of academic authority as we define it: the allocation of resources according to legitimately established priorities. This discussion must start with government, which in England but to a much lesser extent in Scotland, comprises both central and local government. Government has a significant interest in the overall shape and nature of higher education. It must decide how much priority to give to higher education compared to other branches of education and other items of public expenditure. However, higher education comprises a wide range of activities, and it is also appropriate for government to establish broad priorities amongst these. Its prime concern is with the efficient use of public funds.

The concept of efficiency is however, a difficult one, particularly in higher education where output is not clearly defined. At its simplest, it carries an implication of avoidance of waste. Few people, even among the most ardent supporters of academic freedom, would deny the right of government to discourage waste and misuse of public funds.

A more complex concept of efficiency arises from notions of cost-effectiveness and value for money. It is appropriate for central government to influence unit costs. It is quite proper for the state to keep public expenditure costs under review, and to make specific inquiries when there is prima facie evidence of significant differences in the costs of apparently similar activities in different institutions. Responsibility for deciding on the allocation of their resources should rest with institutions. However, it is not inconsistent with their essential academic freedom for resource allocation agencies to have the right to obtain information which will enable them to invite colleges, polytechnics and universities to account for cases where their costs are apparently significantly different from those for similar activities elsewhere. Either institutions would be able to justify differences on the grounds that their apparently similar activity was in practice different or they would risk losing funds to others able to do the work more efficiently. In the long run, institutions should have an incentive to concentrate on areas where they have a price or quality advantage. The only outside interference need be the withdrawal of funds from areas where high costs cannot be justified. Obviously there are accounting problems, particularly with respect to the attribution of joint costs; but we agree with Morris (1982) who claims that these problems are intrinsically no more difficult than those confronted by many large multi-product, multi-enterprise firms.

A third, more controversial, concept of efficiency is that of the system as a whole in producing a pattern of output that maximizes the benefits from the resources provided. This is the most difficult area in which to define the proper role of political and academic authority. We have stressed the heterogeneous nature of higher education. We have also made the case for leaving institutions free to take their own resource-allocation decisions subject to the constraint of having to justify apparent examples of excessively

high costs. However, there is the much broader question of the proper balance between areas of activity: for example, between full-time degree study, continuing education, research and research training, pure science, technology and humanities. Would there be any net benefit if resources were taken away from theoretical physics and devoted to mechanical engineering? The most that can be said a priori is that there will be differences of opinion. It is hardly likely, for example, that physicists will have exactly the same opinions as engineers on this question. In our opinion a proper role for the central political authorities is in the allocation of resources between such broad areas of activity after open consultation with interested parties and others with an informed contribution to make. Political authorities in a publicly financed system of higher education have a responsibility to decide through the evaluation of political priorities the total amount of resources to be devoted to each of the major programme areas in which higher education is involved. However, imposition of these priorities on individual institutions may well be deemed an unwarranted intrusion on professional and academic freedom. We see the simulated market as providing a way out of this dilemma.

Instead of there being a total higher education budget divided amongst institutional claimants, expenditure under several main programme heads should be determined separately by government, and allocated to the institutions through separate funding modes. There need be no higher education budget as such, though obviously for statistical purposes it would be possible to aggregate expenditure under the several headings. The political and other criteria for determining the appropriate level of resources would be different for different types of activity; and so, we think, would be the appropriate machinery by which the funds found their way to the basic operating units. There is no reason why the mechanisms and funding criteria which are appropriate for high-level research, for example, need be the same as those which are appropriate for continuing education; yet both are legitimate activities of higher education institutions. The mechanism we are proposing is in many ways similar to 'problem budgeting' proposed by John Pratt. 'First, problems should be identified and expressed in terms external to the educational system. Second, funds should be allocated in relation to the importance of the problems. Third, choice between alternative solutions (activities) could be based on comparative cost effectiveness of those activities. Fourth, the evaluation of the system should relate its overall effectiveness in solving the problems to the costs of doing so' (Pratt 1982).

Two objections are sometimes made to the creation of a variety of mechanisms through which public funds can be channelled to a particular public service. One is that since all the funds derive ultimately from government, the machinery for their allocation makes no difference to their total amount: a multiplicity of funding mechanisms merely leads to bureaucratic complexity. The other is that such machinery is merely a way of

obfuscating the lines of accountability to enable professional academics to evade political scrutiny. We consider the first argument to be wrong and the second to be correct but misconceived.

The first objection is wrong because 'government' is not a unitary body taking simple decisions. The work of policy analysts during the past decade has shown clearly how government itself is a tangle of competing interests, each only partly understanding the implications of the decisions it takes, and applying different criteria to different aspects of its responsibilities (for example Kogan and Boys 1982). There is no reason why a decision about the overall size of a higher education budget should have the same outcome as several separate decisions about several different activities in higher education institutions. There is no doubt that a 'political' division of the higher education budget into a number of major problem areas would be advantageous to some activities and detrimental to others, compared with an allocation according to 'academic' criteria. However, we have little doubt that in a period in which the traditional higher education population will decline sharply, the net effect of applying a variety of political criteria to basic resource-allocation decisions would be more advantageous to higher education as a whole than the continuation of arrangements which essentially link finance predominantly to a single criterion.

The second objection is correct because a variety of mechanisms of finance will increase the independence of institutions. One aim of the model being developed in this chapter is to free universities, colleges and polytechnics from dependence on single sources of finance. However, it should not reduce their total accountability for the public funds they receive. Institutions should certainly be accountable for what they receive *via* different routes, and they would find it difficult to obtain resources for activities that lay outside their agreed development strategies unless they could demonstrate very good reasons for them. What they would not be is accountable to and dependent on a single omnipotent outside funding body.

A final issue of principle is the relationship between the agencies distributing separate budgets and government. The establishment of an intervening over-arching advisory body has a strong appeal to many people within higher education. Many participants in our seminars and conferences proposed the establishment of some kind of higher education co-ordinating council; and *The Structure and Governance of Higher Education* (Shattock 1983) includes a recommendation for such a body, although Shattock himself expresses doubts about its wisdom. The National Union of Students has recommended such a body, as did the House of Commons Report on the Organization and Funding of Higher Education. As we see it, the main argument in its favour is that its formal advice to the Secretary of State would cover the whole system of higher education and would be open to public scrutiny. Furthermore, if properly staffed such a body could undertake badly needed continuing policy research into higher education. However, we are not convinced that an over-arching body has a real function

to perform. We have been impressed by the apparent way in which many State Post-Secondary Co-ordinating Commissions in the United States are by-passed in many of the real resource-allocation decisions. The evidence from Australia is slightly different in that the Tertiary Education Commission does have real authority. However, the Tertiary Education Commission has in the last analysis been essentially a forum for the chairman of three constituent councils to meet under a powerful chairman. There is obviously a case for the chairmen of major funding bodies to meet regularly. A small secretariat would be desirable to service these meetings. However, this would fall far short of a large council with responsibility for co-ordinating allocation of resources across the whole of higher education.

However, our doubts about the role of an over-arching body result mainly from the arguments we have used for the existence of separate funding bodies with responsibilities for different aspects of higher education. Each funding body should make its case directly to central government and allocate resources directly to institutions on criteria that are appropriate for that activity. We believe there are virtues in the advice of funding bodies to government and to institutions being made public but we see no reason for interposing another agency between the funding bodies and the political authorities.

SUMMARY

There are three basic principles which should underlie the organization of institutions and determine their relationship with the national agencies concerned with co-ordinating the system as a whole. First, basic academic activities themselves should be under the control of individual academics responding to their own professional judgements and, in the case of teaching, the requirements of individual students. Second, the co-ordinating and policy-making bodies of the institution should represent the amalgamation of the interests of the component basic units; but they should also be permeated by influences representative of local and national social, political, economic and cultural interests. Third, the institution should have access to several different significant sources of finance that reflect the diverse functions of a modern system of higher education. While most institutions will probably have a primary source of funds, it is important that secondary and tertiary sources of finance are such that the institution has a substantial measure of real independence from changes in the criteria used by its primary funder.

Provided that these three principles are met, there are advantages in a wide variety of arrangements for the ownership and governance of institutions. The more that they vary, the greater is the likelihood that the aim of diversity, variety and responsiveness will be achieved.

10

BLURRED BINARY LINE TO RESTRAINED PLURALISM

BINARISM

In Britain as in most other countries an academic strand and a utilitarian strand can be identified in the tangled web of higher education. Burgess (1982) has called them the autonomous and service traditions and, with a sharper eye for recent tendencies than for historical antecedents, has identified the former with the autonomous universities and the latter with the more closely controlled public sector institutions. Throughout most of the postwar period the dominant ethos of British universities has been academic, accompanied by a prickly concern for institutional autonomy. Many senior academics have claimed that these are the conditions on which universities can best serve the long-term needs of society. Meanwhile, public sector institutions have on the whole shown more interest in direct public service and have been more innovative in responding to the perceived needs of different categories of students, in particular in providing alternatives to the single-subject full-time Honours degree. However, they too have concentrated on full-time Honours degrees when they can, and have had strong financial incentives to do so.

The separation of universities from other institutions of higher education is by no means unique to Britain. Indeed countries, such as Italy, that do not make the distinction are exceptional. Administratively the British binary line is less sharp than in many other countries. It corresponds to differences of ownership and control of institutions, mechanisms of finance, forms of academic control and salaries and career structures of staff but does not mark sharp academic differences. In fact, five categories of institution can be identified. At one extreme is the University of Buckingham, almost entirely dependent on student fees and subject to no other external control. Second are the traditional universities, usually independent corporations with Royal Charters, receiving most of their income from public funds through the University Grants Committee. Third is the Open University, also with a Royal Charter but receiving most of its income by means of a direct grant from the Department of Education and Science and Scottish Education Department. Fourth are other institutions receiving a direct grant from the DES or SED. In Scotland the great majority of non-university higher education is provided by direct grant central institutions while in England direct grants are paid to a small group of voluntary colleges owned by religious bodies and a very small number of independent institutions. Fifth, comprising nearly 90 per cent of

non-university higher education in England, are institutions maintained by local education authorities.

With the exception of the very small University of Buckingham and the Open University each of these categories itself comprises a wide range of institutions. When the activities of each British higher education institution are plotted on a graph there are overlapping distributions rather than two sharply divided sectors. In all types of institution the Honours degree course is the central concern. Over three-quarters of the student load of universities and well over half the full-time equivalent students in the non-university sector are on full-time first degree courses.

Differences in legal and administrative arrangements do not therefore correspond to sharp differences in academic functions. Similar activities can be performed in institutions with very different legal status. There is no overriding academic reason why a major polytechnic should not house a new medical school. Conversely, during the next ten years many universities are likely to make great efforts to attract part-time students and mature students. Universities might well be subject to more systematic external academic review in teaching as well as in research without damaging their stature as autonomous universities. There is a case for funding at least some polytechnics so as to enable them to develop a significant research capacity on terms similar to universities and this would not be incompatible with their status as major local authority institutions.

A simple binary policy with two sectors acting independently and competitively is unlikely to encourage diversity when there is severe competition for students and resources. There will remain a strong tendency for institutions on both sides to converge even more than previously on the middle ground of full-time Honours degree courses unless there are strong incentives to do otherwise. Mechanisms are necessary to allocate functions in a network of partly specialized institutions. A strategic choice is whether this is best achieved through regulation from outside or whether it can be left to competition between institutions. It is easy to reject both rigid bureaucratic control and unrestrained market competition, but this leaves open the question of whether there needs to be any change of emphasis: should institutions be subject to more external regulation, or should they be subject to more market influence? We believe they should be able to respond directly to external economic and social influences through what have been described in Chapter 9 as simulated market mechanisms. One way of achieving this is for them to receive a significant proportion of their income from fees, grants linked to the performance of specific tasks, and the sale of services. It is not, however, realistic to expect competition by itself to create a system of higher education that meets acceptable criteria of excellence, efficiency and equity. Central agencies need to have powers to co-ordinate the broad functions of independent institutions but their policies should be subject to open debate and discussion.

THE ROLE OF GOVERNMENT

Central government must have an active higher education policy both because of the key role of universities, colleges and polytechnics in the nation's system of research, education and training, and because most of the money comes from national sources. In the fifteen years following the Robbins Report, higher education policy and the higher education budget were determined largely on the basis of estimates of student demand. Recently, so-called 'expenditure-led' policies based on cash limits have been dominant. Neither will be viable during the next fifteen years. 'Robbins'-type criteria are likely to bring about arbitrary reductions in activities other than traditional degree courses, while expenditure-led policies provide no basis for the establishment of priorities.

Government has a responsibility to determine the broad allocation of resources in accordance with its perception of national needs. While it is neither politically desirable nor economically efficient for central government to be responsible for the detailed allocation of resources to institutions and individual activities, it should have a policy with respect to the scale of provision in key areas of major public concern, either because these meet particular needs or because they make especially high demands on national resources. In our view, central government should have such a broad overall view of the scale of provision, made effective in its resource-allocation procedures with respect to: (i) occupationally related initial education in areas such as (a) technology, (b) medicine, (c) school teaching and (d) management training; (ii) the encouragement of access from as wide a social spectrum as possible; (iii) research and research training; (iv) continuing education.

The main resource-allocation decisions of the Secretaries of State* at present are:

i the total size of the higher education budget in consultation with the Treasury and Cabinet;
ii the allocation of this budget between the universities, local authority sector, voluntary sector and research;
iii the allocation of the total for each programme to separate institutions, acting on the advice of relevant advisory bodies;
iv making direct grants to a small number of institutions after direct representations from the institutions concerned.

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*The Secretary of State for Education and Science in England and the Secretaries of State for Scotland and Wales. Permanent officials of the Department of Education and Science and the Scottish and Welsh Education Departments cannot be distinguished constitutionally from their responsible Minister and in this section we follow this constitutional fiction.

The government also exerts *influence* through policy statements, persuasion and access to information.

There are some differences between these arrangements and the functions proposed above. Secretaries of State determine the broad allocation by types of institution but, with the exception of the part of research funding that goes through the research councils, they have exercised few overt powers over allocations to main programme areas. In June 1982 the Secretary of State for Education and Science announced to the UGC and the NAB that he proposed in future to offer more guidance on the allocation of their budgets between broad programme areas (DES 1982), but it is not yet clear what this will mean in practice.

Central government has in addition specific interests in many of the activities of higher education institutions. For example, the DES has a major interest in the education of teachers, for whose employment prospects the Secretary of State has ultimate effective responsibility. The Department of Health and Social Security has a similar interest in the education of doctors and para-medical staff. The Department of Industry has an interest in the financing of research and development and in the education and training of engineers and business managers. The Department of Employment and the Manpower Services Commission have a general concern with the employability of graduates. All government departments have major research programmes.

Central government also has a responsibility for the quality of higher education provision. There are dangers that quality will be compromised as institutions compete for students in the difficult times ahead. Freeman (1980) and Trow (1982) paint depressing pictures of the effects of competition on the quality of American higher education. This poses a dilemma. There are dangers in the political control of the content of courses and research programmes, which is what central government control of quality could mean. Control of the quality of provision should remain a responsibility of the higher education system itself. However, in a situation of resource stringency, governments have a responsibility to their electorates to protect quality. Academic institutions are likely to find it advantageous to be seen to be exercising quality control collectively rather than straining the integrity of individual institutions and academics.

Local authorities are in some respects intermediary organizations between central government and academic institutions while in other ways they are independent centres of political influence. Local authorities in England are responsible for over sixty institutions whose main concern is higher education, and several hundred that offer some higher education courses. The fragmentation of control of the institutions amongst many separate authorities, each an independent base of political power, makes it extremely difficult to develop coherent national policies for the sector as a whole or to co-ordinate these with policies towards universities.

Most of the finance for local authority institutions does not come

ultimately from the maintaining authority. Because many courses are attended by students from outside the authority an advanced education pool was established, to which all authorities contribute according to a formula. There was no direct link between the number of places an LEA provided and its responsibility to find the funds. The total size of the pool was determined by the number of students seeking places. The separation of the ability to commit funds from the need to find them resulted in increasing central government concern, and ultimately the policy of cash-limiting public expenditure led to a 'capping' of the pool in 1980. Any local authority spending on higher education above a designated limit must be met out of that authority's own resources. When combined with the new arrangements for general rate support grant under the 1981 Local Government Act the net effect is to give maintaining authorities little real discretion over financial allocations to the higher education institutions they maintain.

A valuable analysis of the finance and management of local authority higher education was made by the Working Group on the Management of Higher Education in the Maintained Sector (Oakes 1978). That Committee was chaired by Gordon Oakes, a Minister in the 1974-79 Labour government, and its Report disappeared into oblivion with the change of government in 1979. However, in 1980 its main proposal re-emerged in a DES discussion document in only slightly changed form, and a National Advisory Body for Local Authority Higher Education was established in England in 1982 for an initial period of three years. The main task of this Body is to advise central and local government on policy towards local authority institutions and the allocation of resources to them in accordance with a coherent national policy while recognizing the role of local authorities in maintaining their institutions. These arrangements have the effect of bringing resource allocation in the local authority sector under a substantial measure of control, and they provide machinery which will begin to make it possible to devise coherent strategies for the finance of higher education as a whole in both universities and the local authority sector.

Another role for local authorities is in the management and government of the polytechnics and colleges they maintain. It is complicated by the wide variety of institutions currently under local authority control, ranging from some polytechnics which are national and international institutions and have a pattern of student enrolment similar to many universities, to local colleges which provide one or two part-time advanced-level courses in association with their normal work in non-advanced further education. One proposal frequently made is that some institutions, particularly some or all of the polytechnics, should be taken out of local authority control. This was in effect the path of 'promotion' of mature institutions to university status advocated by Robbins and firmly rejected in the 1966 White Paper which established the polytechnic policy. We have already expressed the view that forms of government and mechanisms of finance need not correspond

to academic functions but that *levels* of funding should. Large-scale transfer of institutions out of local authority ownership would bring political and administrative problems and few benefits. As Peter Scott (1983) reminds us, with his reference to the binary line as a moralizing metaphor, there are advantages in retaining the local authority connection. It helps to maintain links between higher education and the rest of the education service — links which in the case of the universities are tenuous and are restricted largely to influencing the sixth-form curriculum through the use of the 'A' level examination as the main admissions criterion for students. Moreover it does provide a reminder of the two distinct traditions of higher education even if the overlap between them is considerable. If co-operation at the national planning level between the UGC and the NAB is firmly established, and similar criteria are used for resource allocation, it becomes largely irrelevant whether or not polytechnics are granted charters. It is not an insignificant fact that technically the five polytechnics financed through the Inner London Education Authority are already independent grant-aided companies having a legal status similar to the London School of Economics and Political Science. The cause of diversity is likely to be best served by a variety of forms of academic government, and the fabric of British higher education is enriched by such heterogeneity.

A common theme which has run through most inquiries into the management of higher education during the past twenty years (including the Robbins Report, the White Paper which established the polytechnics and the Weaver Report on the government of colleges of education) was expressed in the *Report of the Working Group on the Management of Higher Education in the Maintained Sector* in 1978 in the following terms: 'Individual maintaining authorities should retain overall responsibility for the good management of institutions under their control. Subject to this institutions should be subject to maximum freedom to manage their own affairs.' We believe that this is a good principle on which to base the future development of major institutions of higher education.

Institutions where a minority of students are on advanced-level courses raise rather different issues. Most students on such courses are part-time and therefore locally based. There would be a significant restriction of access if these part-time higher education opportunities were no longer available; and while their costs and quality need to be kept under review they add to the variety of national provision. The links between higher education and the rest of further education are nowhere stronger than in such local colleges. Our proposals for a significant increase in the funding of individual higher education programmes (see p.126 below) are made partly with their needs in mind.

THE UNIVERSITY GRANTS COMMITTEE

The UGC is, with some justification, a hallowed institution. It has been much admired and widely copied in many countries since its establishment

by the issue of a Treasury Minute in 1919. Essentially it is a mechanism for transferring public funds to the universities without subjecting individual universities to the rigours of political accountability. Its terms of reference are:

> 'To enquire into the financial needs of university education in Great Britain; to advise the Government as to the application of any grants made by Parliament towards meeting them; to collect, examine and make available information relating to university education throughout the United Kingdom; and to assist, in consultation with the universities and other bodies concerned, the preparation and execution of such plans for the development of the universities as may from time to time be required in order to ensure that they are fully adequate to national needs.' (HC 1980)

The methods of operation of the UGC have been frequently described (eg Berdahl 1959 and 1983; UGC 1968; Williams 1978; Moodie 1983).

> 'The UGC is not a statutory body and there is no legislation governing its existence. Its members are appointed by the Secretary of State for Education and Science after consultation with the Secretaries of State for Scotland and Wales. All serve in an individual capacity; none is representative of any particular university, organization or interest, although collectively their knowledge and experience cover a wide field. Only the Chairman is full-time. Members devote about one-fifth of their time to the Committee's business; otherwise they are actively engaged in their professions. Apart from the Chairman there are normally 20 members, most of whom are drawn from the universities, the remainder being from other sectors of education and from industry. The Education Departments and the Research Councils have assessors on the Committee, but these assessors have no responsibility for Committee decisions. The Committee reports to the Secretary of State for Education and Science. Its advice to the Government is confidential.
>
> 'The Committee is supported by a system of advisory sub-committees, covering a wide range of academic subjects. These sub-committees, the members of which are appointed by the Committee, meet under the chairmanship of a member of the Committee and consist of experts in the field concerned, drawn largely from the universities.' (HC 1980)

The essential features are, first, that the membership of the UGC is predominantly academic and, second, that most of its recurrent grants to universities are not earmarked and third, that little attempt is made to monitor whether the actual expenditure of recurrent funds has corresponded to what was assumed when the grants were made. The critical question for the future is whether these mechanisms are sufficiently robust to cope

with the inevitable stresses of the next two decades. Should the structure and membership of the UGC be altered, and should it change significantly its methods of allocating funds?

The UGC is in many ways one of the last bastions of the traditional British ways of managing affairs through gentlemanly conduct and fair play. Its legal basis is shaky, yet it has responsibility for important institutions that are at the heart of the intellectual life of the nation. Its members are appointed by the Secretary of State for Education and Science, but there has been a strong tradition that they will be broadly acceptable to university opinion. It allocates well over £1,000 million each year yet its staff is small, and, apart from the chairman, its members devote only a small part of their time to UGC business. It claims to understand university thinking, yet most of its full-time staff are career civil servants. Its members are appointed in their individual capacity and are concerned with the interests of all universities, yet most of them spend four-fifths of their time working in a particular university. In the past the UGC has surmounted these paradoxes and created a university system that has worked even though it has sometimes been criticized for being slow to respond to changes in the economic and social climate. However, the UGC conventions have evolved over a long period of university expansion during which public funds available to universities have increased year by year. The doubts which the Association of University Teachers (AUT) and some vice-chancellors have begun to express about the ability of the UGC as at present constituted to meet the rather different challenges of the 1980s and 1990s are likely to become more and more insistent.

There are doubts also about whether the UGC's methods of allocating recurrent funds can cope with the pressures of the 1980s and 1990s, and indeed there have already been substantial changes. The most fundamental of these since the universities first began to be overwhelmingly dependent on public funds during the post-Second World War period is in the place of capital expenditure. When universities were expanding, the UGC, and through it the government, were able to exercise considerable influence on the pattern of university development through control of capital expenditure, and this has for many years been subject to detailed control. This enabled recurrent grants to be allocated on the basis of what we have described in Chapter 9 as the quasi-collegial model. The quinquennial block grant system amounted to an arrangement whereby government in effect gave universities unconditional endowment income for five years at a time. Since most of the period from 1920 to 1980 was one of expanding government financial support, universities came to treat the quinquennial grant as if it were permanent endowment income. For example, they appointed staff to permanent tenured posts up to the limit of their grant in each quinquennium, a practice which in retrospect seems irresponsible now that government expenditure is contracting. However, it was a legitimate application of the collegial principle on the basis of what at

the time appeared to be permanent income. The secrecy surrounding the precise assumptions underlying the allocation of grants to individual universities was intended to enhance their autonomy. Were the UGC to indicate the basis on which the grants are made, this would exert undue influence on the internal resource allocation procedures of individual universities.

We do not believe the convenient fictions of the quasi-collegial model can be sustained during the next fifteen years. The absence of the levers of capital expenditure and increasing budgets will mean growing pressure from government and elsewhere for the UGC to earmark increasing proportions of its recurrent budgets and to be selective between institutions. This can be damaging for academic freedom, and with the present size of UGC support staff it will almost certainly be arbitrary, unfair and inefficient; even if it is not, those institutions selected for unfavourable treatment will claim loudly that it is. The UGC will best fulfil its historic functions of protecting academic freedom and encouraging efficient resource utilization by co-operating with other funding agencies in a move away from its quasi-collegial model of resource allocation towards the simulated market model.

In addition, we anticipate that during the course of the next ten years the following main changes will prove to be necessary: (i) placing the UGC on a proper statutory basis; (ii) appointing several full-time members with functional responsibilities in broad subject areas; (iii) appointing part-time members who are more explicitly representative of the main groups with an interest in higher education — for example, the Vice-Chancellors' Committee, the Association of University Teachers, other unions with a substantial academic membership, employers' organizations and local authorities; (iv) increasing the number of staff who have substantial experience of academic administration within universities.

The Structure and Governance of Higher Education (Shattock 1983) recommends the long-term aim of the merging of the UGC and the NAB into a single funding body for the whole of higher education. However, there are significant differences in the constitutions of the two bodies, reflecting differences in the legal and administrative arrangements in the institutions for which they are responsible.

The division between the UGC and the NAB owes more to administrative history than to academic function. The NAB needs time to consolidate its influence in the local authority sector. This can usefully be extended to include other institutions which obtain most of their income from central government. The NAB and the UGC should continue the process of eliminating obvious anomalies in resource allocation to similar activities in different types of institution. We believe it is more useful for them to agree similar funding standards for the many activities that are common to universities and public sector institutions than prematurely to confront the difficulties involved in a merger.

ADAPTING THE ROBBINS PRINCIPLE

The National Need for Qualified Manpower

Apart from some specific areas such as teaching and medicine, manpower needs are not explicitly distinguished in the finance or regulation of higher education. Most of the institutions on which the UGC and the NAB advise do not distinguish between occupational preparation and general educational aims. The distinction is inevitably blurred. Some subject areas such as engineering have a good claim to be considered as both, providing training in specific skills and education that is of general value.

However, there are many parts of higher education in which there is control of courses from outside bodies because of the links these courses have with employment. Sometimes this takes the form of control of the number of places on particular courses as, for example, social work; more often it takes the form of a regulation of course content through specification of the eligibility of graduates for professional recognition as, for example, by lawyers and psychologists. Frequently both quantity and content are regulated, as in many of the advanced-level courses validated by the Business and Technician Education Council. Other controls in the non-university sector are exercised by regional advisory councils, which keep under review the total provision of courses in a region. One of their main criteria is the likely employment prospects for graduates.

That career prospects are in the minds of most young people when they seek higher education was clearly shown by the dramatic swing towards vocational studies during the 1970s as the graduate job market deteriorated. However, labour market needs cannot provide a simple criterion for higher education provision in the 1980s and 1990s analogous to the Robbins criterion in the 1960s and 1970s. 'Some believe that a proper consideration of it might yield a new guiding principle for the development of higher education during the next two decades. ... This is an illusion. It reflects a lack of understanding about the way the labour market works and represents a rather simplistic reaction to realizing that the Robbins principle is no longer a prescription for the continued growth of higher education' (Lindley 1981).

We share Lindley's scepticism of simplistic manpower planning. Nevertheless, Lindley also draws attention to '... criticisms from groups outside education, notably employers, of the system's lack of response to the needs of the economy both in terms of satisfying its requirements for highly educated manpower and helping to sustain technical progress on a par with that of other countries.' We strongly agree with his view that '... labour market considerations should matter to the higher education system because they provide *part* of the reason why students seek entry and why governments have continued large subsidies. Whether these groups' perceptions of the value of higher education depend on the myth or on the reality of the labour market our universities, polytechnics and other

institutions can hardly afford to ignore them.' There is little chance of manpower needs criteria providing a simple guiding principle for the future provision of higher education, but employment needs should influence the size and orientation of a diversified system. Our proposals are aimed partly at increasing the responsiveness of higher education institutions to the needs of society generally by improving information flows and allowing financial incentives to transmit messages between students, institutions, employers of graduates and government.

Research

Research is funded by government in three ways. One is through UGC grants to universities. How much of the UGC grant is for research is unspecified; but for several years, following a study in 1970 by the Committee of Vice-Chancellors of the use of academic staff time, it has been customary to assume it is between a quarter and a third (Verry and Davis 1976). The second way in which government supports research is through the research councils' budget. Research council grants assume that the overhead costs of research are met by the UGC. Governments have traditionally been reticent about direct intervention in these two mechanisms. Recently, however, more government pressure has been put on both UGC and research councils to favour some areas of research. The third form of government finance is by contract with individual institutions to undertake projects related to specific policy interests. Such grants normally cover the full costs of the research, but rarely is allowance made for associated basic research or research training; following the publication of the Rothschild Report in 1972 there was some shift away from research councils and towards this form of allocation.

The UGC block grant makes no explicit distinction between research and teaching. There is clearly a danger in a time of declining student numbers that institutional rigidities will result in funds intended for research providing a cushion protecting institutions from the need to respond to changing patterns of student demand. There is also a more technical problem that dual funding as operated at present makes it impossible to tell whether similar levels of resources are being provided for similar activities in universities and the public sector. Some separate identification of university research budgets is needed. There are broadly three options: (i) identification of separate research and teaching budgets in the UGC grant; (ii) transfer of all or part of the research component of the UGC budget to the research councils; or (iii) transfer of part of the research budget to government departments to allocate in accordance with their policy priorities.

As regards the third of these, what may be called the 'Rothschild (1972) option', the evidence in *The Future of Research* (Oldham 1982) casts doubts on whether there is a sufficiently close link between policy needs and the kind of fundamental research best conducted in higher education to be

able to suggest any further significant shift towards linking the two.

As regards the first option Durham and Oldham (1982) consider that the funding of teaching and research should continue to be largely through the UGC but should be more sharply distinguished than it is at present. In their scheme, '... the UGC would continue to fund both teaching and research. It would, however, use different criteria for each. The funding of research would be linked to designated research centres at each institution, and there would be a measure of "resonance" between the general support for research provided by the UGC and the specific project funds provided by the Research Councils.' The effect of this recommendation would be that the UGC would become more selective than it has been previously in its allocation of resources. In order to mitigate the danger that this selectivity would be based only on past and not on potential research strength, Durham and Oldham propose that funds should be set aside to encourage new ideas and young researchers.

Several of the proposals made by Durham and Oldham (1982) are aimed at ensuring a sharper focus for research expenditure, both in distinguishing strategic national priorities and in identifying individual departments and units whose research performance warrants their being singled out as centres of excellence deserving special financial support. We agree strongly that resource allocation for research must be selective and that funds should be directed towards institutions and individuals where the net benefits are likely to be greatest. However, we would not wish to see rigid designation of particular centres bringing the inequity and inefficiency that can occur when generous support for previously productive research groups is at the expense of potentially productive new groups; and we believe that there must be some mechanism to enable new research groups to establish themselves. We would be particularly disturbed by policies that permanently designated whole institutions as centres of research excellence.

However, if as we have suggested in Chapter 7 there is not a rigid link between teaching and research the case for finance of research through the UGC is much less strong. Some of the funds received by all institutions of higher education should be to enable them to maintain high standards of scholarship, but un-earmarked funding or research through the UGC budget can be damaging to research. If student numbers are falling it will be hard to resist political pressures for the research budget to fall proportionately unless it is explicitly linked to criteria other than student numbers. The un-earmarked funding for research received by universities is one of the main sources of antagonism from the public sector, both because of the apparent prestige it implies and because of the advantage it gives to the universities in competing for research funds from elsewhere. It raises the apparent average cost per student in universities.

If a greater proportion of research funding were allocated through the research councils to departments and other basic units, all institutions would be enabled to compete for it on more equal terms. We are not arguing

for a dismantling of the dual support system. It has the inestimable advantage of providing universities with a basis for continuity in research programmes, enabling them to keep successful research teams together while new research grants are sought. Grants from the UGC to universities should provide for basic laboratories and libraries and other facilities required jointly for teaching and research. They should also provide opportunities for individual research and scholarship by members of academic staffs. However, there are doubts about whether the present assumptions underlying the UGC block grant are appropriate for the circumstances of the next fifteen years. There would be some advantage if a greater part of the cost of research and research training were funded through specific research budgets. We therefore suggest both that the UGC should separate its grant into research and teaching components and that a greater share of the research budget should be distributed by research councils.

Continuing Education

Continuing education is the subject of many fine words but few buttered parsnips. Initiatives are left largely to institutions, and few funds are available to encourage new developments. The main function of many continuing education initiatives in recent years, especially in universities, has been to try to generate additional income.

There are four disparate initiatives at government level which perform some of the tasks we have in mind when we refer on page 113 to a central government interest in ensuring the performance of a continuing education function by higher education institutions. One is the provision of a small amount of specific funding of university extra-mural departments and other bodies responsible for adult education provision. Second, and financially the largest, is the Open University. Third is the Advisory Council for Adult and Continuing Education, which was established for an initial period of three years in 1977 and was renewed for a further three in 1980. The body has produced some useful reports, but its role is advisory and its advice is not linked to specific allocations of resources or to policy decisions. Finally, on a small scale, is the more recent initiative to encourage professional, industrial and commercial updating for those in employment — the PICKUP scheme.

The funding of continuing education involves many of the same issues as the funding of research. It is an activity much broader than higher education, but the contribution of higher education is a key one. It needs protection from arbitrary cuts if budgets are reduced because of the declining population of school-leavers. Like research, continuing education could be funded as an adjunct of the general funding of institutions; it could be funded through a special agency; or it could be funded through the purchase of courses by individuals, firms and government departments. Unlike research, continuing education does not at present have a specialized

funding agency. Institutions provide continuing education either out of their general budgets or on a full-cost basis to students or sponsors of students.

Any agency which succeeds the Advisory Council for Adult and Continuing Education will have concerns far wider than higher education, and a consideration of such issues ranges beyond the scope of this volume. It involves the role of the Manpower Services Commission and local authorities' general educational responsibilities as well as the activities of colleges of non-advanced further education and adult education. As far as higher education is concerned, the issue is whether present funding mechanisms involving the NAB and the UGC are likely to be adequate to meet the needs for advanced-level continuing education. One general conclusion, as for research, must be that in a long period of financial stringency present funding arrangements are likely to put excessive pressure on that part of the continuing education of adults which lies outside the formal pattern of course provision. A more flexible pattern of courses such as that outlined in Chapter 4 would bring more adults within the scope of the normal activities of universities and other colleges. In addition, however, some earmarking of budgets for continuing education is essential, and in our view a specialized agency is the best way of achieving this. If politicians are serious in their claim to be giving higher priority to continuing education a separate funding agency is needed, committed to arguing the continuing education case with government and allocating resources to institutions according to criteria that are appropriate to its area of concern.

PLURALISM

The key to a higher education system that is able to offer excellence in diversity is restrained pluralism. Institutions should have a substantial measure of independence from direct control by both central and local government, but should be exposed to external influences through active governing bodies and financial incentives which encourage them to respond to changing social and economic needs. Wasteful duplication and inadvertent gaps in provision can be avoided by each university, polytechnic and college having an explicit academic development plan formulated within the institution but agreed by relevant funding bodies in accordance with their perceptions of national and regional needs. The plans could be essentially similar to the quinquennial plans universities prepared for the UGC before the quinquennial grant system collapsed. However, in a period of adaptation without growth it will be necessary to include the whole range of institutional activities, whereas in the period of expansion it was possible to concentrate mainly on incremental resources and new activities.

Higher education institutions are subject to four sets of pressures: (i) students, (ii) employers, (iii) academic staff, and (iv) funding agencies. Students are the immediate consumers of teaching services and have a right to influence their orientation, but students are normally not well informed about the content of their courses or past experiences in teaching them.

Employers are consumers of teaching services through their employment of graduates. They also consume the results of research. However, they have little professional expertise in academic matters. Academic staff have professional expertise in teaching and research but usually have a vested interest in the status quo. Funding agencies are responsible for guarding collective national and local interests but external control by them can be oppressive and inefficient. Mechanisms of finance reflect the relative power of these various pressures. The independence of institutions can best be safeguarded and a balance between the pressures achieved if they have several separate significant sources of income.

An important function of any financial mechanism is to ensure that resources are allocated efficiently to the processes for which they are intended. It is a compromise. In higher education there must be a compromise between the claims of academic freedom and the rights of government to establish priorities and require accountability for the use of funds. There must be a compromise between the desire of institutions for guaranteed funds to enable them to plan rationally for the future and the wish of external funding bodies to use financial incentives to encourage particular kinds of response. We can identify four main mechanisms of finance of academic institutions, which we call (i) core finance, (ii) programme funding, (iii) fees from students and (iv) other earned income. Our proposals are an attempt to use the balance between the four sources as the mechanism for regulating the relative amount of influence had by each of the four pressures identified in the previous paragraph.

Each institution whose primary activity is higher education should be entitled to receive core funding guaranteed in real terms over long periods of time from either the UGC or the NAB in accordance with its agreed development strategy. Core funds can be seen as reflecting the professional interests of members of academic institutions who would be able to allocate them according to their own agreed academic priorities within the constraints of a development plan they have themselves formulated. Core funding thus corresponds to the traditional block grant of the universities. The appropriate level of core funding will depend on several considerations. The higher the level of its core funding, the more an institution will be dependent on a single funding agency and therefore the more susceptible it will be to judgements made by the agency. A high level of core funding will also mean few incentives to initiate responses to changing circumstances and a short time period over which the core funding can be guaranteed. We consider that an average level of core funding over the system as a whole of about 50 per cent of institutional income would give sufficient recognition to the legitimate claims of academic autonomy by academic institutions.

It is not a valid criticism of this proposal to claim that some activities would be unable to generate supplementary income. Programme grants would be available to supplement core funds and funding bodies could allocate them according to any academic or social criteria which they

considered important. Such grants would differ from core funding in that the criteria would be determined externally and collectively while with core funds the institution would determine the details of its own priorities. The full-cost funding of specific programmes and projects should cover teaching and research and other kinds of public service. Agencies would designate funds for specific programme areas and higher education institutions would be entitled to bid for them. Programme grants would be for shorter periods than core funding grants. They might be renewable, but there should be no automatic expectation of renewal. There need be no limit on the proportion of its income that an institution could derive from programme grants, but it would face an uncertain financial future if it came to rely too heavily on this mode of finance.

Local authorities should be able to provide programme grants for specific purposes in both public sector institutions and universities. One example might be in-service training courses for teachers or other local government employees. Some finance for such locally based programme funding could be provided in the block rate support grant. Such local authority programme grants might well be the dominant form of finance of higher education courses in institutions with a small proportion of advanced-level work. The research councils and any continuing education agency, although they might offer core funds to some units, would probably adopt primarily the programme funding mode; while the UGC would probably allocate a relatively small part of its total funds in this way. However, programme funds are a powerful instrument for the encouragement of adaptation and innovation and if universities as a whole were limited to 50 per cent of their income through the core funding model the UGC would need to earmark a significant part of its funds for special programmes. Given the greater variety of provision in the public sector and its tradition of responding quickly to local needs, the NAB (and its Scottish and Welsh counterparts) would probably place more emphasis than the UGC on the programme funding mode.

The third constituent of the income of institutions should reflect the priorities of their student customers. This can usefully but not necessarily be achieved through the payment of fees although we are not arguing that students themselves should pay: they should continue to be subsidized as at present. The Robbins Report argued for the maintenance of a significant fee component in the income of institutions. The Committee's case has even more relevance today than it did in 1963.

> '... The decline (in the proportion of university income derived from fees) is to be regretted. ... Up to a point, it is better to subsidise students than institutions. ... We would emphasise that our recommendation is not so radical. Income from fees has declined proportionately and we think that there are good reasons for reversing this tendency. Accordingly we recommend that the level of fees be revised so that in future they meet

at least 20 per cent of current institutional expenditure. Some of us would prefer to see the proportion greater.' (Paragraphs 652-654)

In the late 1970s home student fees did reach the level suggested by Robbins, but this policy was subsequently reversed, apparently because of the difficulty of cash limiting them. It should be possible, we believe, to set cash limits on student fees. Forecasting student numbers one or two years ahead is a relatively straightforward exercise — a high proportion of them are already in higher education. It is much easier than forecasting unemployment levels. If it were felt that even this degree of open-endedness created problems, the student fee component and the programme grant component of the higher education budget could in the short term be included under the same cash limited budget head.

We have not considered overseas student fees. They raise issues which, though important, are not central to a strategy for the long-term future of higher education. If overseas students continue to be charged full-cost fees or, as would be more appropriate, fees related to the true marginal cost of particular courses, it would be more appropriate in our scheme to treat them as part of the earned income of institutions than as part of the fee income whose overall level government and funding bodies would aim to influence.

The fourth source of finance is income from the sale of services and the hire and sale of facilities: mainly full-cost courses, research and consultancy for industry, commerce and government. These represent interests of the wider society that are not reflected in student choice and programme grants from funding bodies. The distinction between programme grants and earned income would not always be clear-cut. For example, contracts from government departments might be considered as programme grants or as earned income. For practical purposes, in operating the regulatory mechanism we are advocating, it would not much matter which category they were ascribed to. However, there would be a difference between activities that were charged and accounted for on the basis of what the market will bear and those where full costs were charged and had to be specifically accounted for. Apart from their contribution as a source of income, a limited involvement in activities that directly generate income is likely to be of value to many academic staff, broadening their range of experience at a time when mobility will be low. Obviously some activities will have a much greater potential than others for earning income, and this might be reflected in the core funding levels set for each institution. Core funding bodies might set an upper limit of, for example, 10 per cent to the amount of earned income that could be retained, to discourage excessive commercialism and neglect of academic responsibilities.

The key element in these proposals is the notion of core funding, guaranteed for long periods but needing to be supplemented to a significant extent from other, less secure sources. If an institution failed to supplement its core income to the necessary extent, its main funding body would either

reduce the amount of core funds or, if there were good reasons, raise the authorized core funding percentage. Where institutions exceeded their prescribed supplementary income they would be eligible for, but not have an automatic right to, increased core funding. The main aim of the mechanism is to encourage institutions to seek outside income where possible and to reward them for doing so, but not to make them so dependent on market pressures as to squeeze out academic activities by staff and students which are intrinsically worth-while but have little likelihood of appealing to immediate market or policy interests.

It might be argued that the mechanism we have outlined is unnecessarily complicated, since nearly all the funds except for some of the earned income would come ultimately from central government sources. The answer to this charge is that the mechanisms by which governments allocate funds do make a difference to the overall size of budgets. Government is not a homogeneous single-minded bureaucracy; it is a complex network of interacting interests and pressure groups. Both the overall amount and the pattern of public expenditure on higher education would be different with the mechanisms we are proposing — we think to the long-term advantage of higher education both quantitatively and qualitatively. Certainly it would help to maintain the autonomy of academic institutions. The Robbins Report considered it 'a source of strength that public finance should come through more than one channel' (Paragraph 653). This is likely to be even more true in a period of severe resource stringency than it was when funds were relatively abundant.

In fact our proposals represent a fairly small modification to the pattern of university finance that has developed in recent years. All the categories of income we are proposing can be identified in university accounts at present. Our aim is to make the balance between the four modes of finance an explicit regulatory mechanism which protects the independence of institutions but provides incentives to respond to changing economic and social needs. Non-university institutions also could readily fit into this pattern of finance without significant changes to their administrative arrangements. Each institution would decide which specific source of income was most relevant to its own institutional priorities, would bid for appropriate programme funds and would seek to attract appropriate categories of student.

SUMMARY

We have reviewed the binary policy and concluded that it is neither an obstacle to desirable diversity nor a sufficient means of ensuring it. There is a considerable variety of administrative arrangements within British higher education but a powerful tendency to concentrate on courses that lead to full-time Honours degrees. The aim of the proposals in this chapter is to devise a system that will encourage diversity while protecting academic freedom and academic quality in a period of adaptation without growth.

We have proposed arrangements and procedures which will give members of academic institutions some role in deciding their futures through their own efforts. Its essential features are, first, the negotiation of development strategies; second, the provision of long-term core funding to finance about half the expenditure envisaged in this development plan; and, third, the provision of other funds through several different mechanisms to enable individual institutions to develop in areas of strength and not be totally dependent on the decisions of any single funding body.

11

RESPONSE TO ADVERSITY

During the next fifteen years the decline in numbers of their traditional clientele will mean a harsh climate for colleges, polytechnics and universities. The pressures on their autonomy and academic freedom will be considerable. Not all will survive. Necessity will drive many of them to virtue, and they will adapt so as to offer new kinds of learning opportunities to new kinds of students. Mechanisms of management and resource allocation need to be robust if institutions are to continue to perform their proper role in the cultural and material life of the nation and if criteria of efficiency, equity, academic quality and academic freedom are to go on being met.

We have attempted to devise such mechanisms. Our basic premiss is that higher education institutions have, and must be seen to have, far wider social functions than the provision of three-year specialized Honours degree courses to full-time young students. Colleges, polytechnics and universities have shown during the past twenty years that they do respond to financial and other incentives and that it is not incompatible with academic freedom or institutional autonomy for them to do so. The aim of government during the 1980s and 1990s must be to encourage change relevant to the conditions of the time and movement away from the administrative arrangements and ways of thinking that were appropriate when there were rapidly increasing numbers of potential students of the traditional kind. Particular emphasis needs to be given to the encouragement of research and the continuing education of adults.

Institutions of higher education have responsibilities towards the rest of society that they could disregard during a period of rapid expansion but which they will ignore at their peril during the coming era of rapid technological change and falling numbers of school-leavers. It is impossible to predict in detail what the future will bring and there is little to be said for trying to prescribe precisely how governments or institutions should respond to particular developments. However, it is possible to establish organizational arrangements which encourage individual students and teachers, institutions and funding agencies to be aware of social and technological changes and to respond to them. It is neither necessary nor desirable for members of academic institutions to follow every passing fashion, but they should have the capacity to adapt to a changing environment in accordance with their best professional judgements.

A SCENARIO FOR THE 1990s

We conclude by summarizing the main ways in which British higher education in the 1990s would differ from the 1970s if our proposals were adopted.

Participation rates would be significantly higher. Some increase will be almost automatic because of the smaller fall in the number of births in 'middle-class' compared with 'working-class' families between 1964 and 1978. We also anticipate, however, participation from a much broader social spectrum, following changes in the pattern of courses, greater emphasis on part-time study, and more intensive marketing. There would be more emphasis on remedial or access courses for social groups where the gap between potential and achievement is large.

In our view, the basic undergraduate course should be a two-year Pass degree. Present first-degree courses are too narrow, too rigid and too long. An initial two-year course, widely available both in full-time and in part-time versions, would provide opportunities for a more general introduction to an area of advanced study than three-year Honours degree courses, but occupation-related two-year degrees should also be available. After the initial course students would have a qualification which would have intrinsic value and would be recognized by employers. However, they could continue their studies, either by doing Honours and research-orientated courses or through occupation-related diplomas and higher degrees. The PhD would continue to be the main research qualification but it would more often include organized research training and there would be less emphasis on originality in a narrow area.

Financial support for students should be modified to support the new structure of courses. Grants should be available for everyone on initial two-year courses. The availability of grants for later years of study should be determined on the basis of specific social and economic need but all students should be eligible for loans, the repayment of which should be linked to ability to pay. The changes we propose can be seen as putting the discretionary element of student grants above the first (Pass) degree level rather than below it as at present. They would remove much of the injustice and inefficiency of the present system at little extra real cost.

Our proposals would make it possible to maintain the quality of academic staff and to introduce new blood as institutions adapt. Lifetime tenure would no longer be the normal form of employment contract for newly appointed university members. They would be subject to national employment legislation as are research workers and the academic staff of public sector institutions. There would be provision for regular reviews of the performance of all but the most senior academic staff, and teaching performance would be an important criterion in these evaluations. Senior academic posts carrying administrative responsibilities would be on a fixed-term, but renewable basis. There would be national schemes to encourage temporary and permanent exchanges of staff between institutions

and between higher education and other areas of economic activity. There would a higher proportion of part-time staff, and more joint appointments.

A number of professional development units should be set up in different parts of the country focusing largely on in-service professional development. One of their main functions would be the organization of inter-institutional course teams in individual subjects and disciplines to develop teaching materials that make use of new information technologies. The system of external examining needs review and a general code of practice should be established.

The research role and the teaching role of universities should be more clearly distinguished and each institution should have both a research budget and a teaching budget allocated according to appropriate criteria. There should be some shift of resources towards the research council mode of funding and away from the UGC block grant principle. Research training should be linked less to the personal interests of individual students and more to research being undertaken and to the needs of industry and society. More research students should be part-time and their studies linked specifically to their professional development.

Universities, polytechnics and colleges should remain independent within the constraints of development plans that they themselves have prepared and subsequently negotiated with their main funding bodies. There should be more lay involvement in the academic government of institutions and closer links between financial and academic decision making. Institutions should receive guaranteed long-term core funding based on their development plans and amounting on average to about half their total income. They should be free to spend their core funds in accordance with their own developing academic priorities. The other half of their income should be derived from earmarked programme grants, student fees and the sale of academic services.

Our proposals are designed to take advantage of the opportunities given by the falling numbers of school-leavers to develop, at no extra cost, a higher education system that is responsive to changing social and economic needs while maintaining quality and academic integrity. There is no comfortable response to adversity. What we propose would be invigorating. A healthier system would emerge that was equipped to meet the challenges of the twenty-first century.

APPENDIX

INTERNATIONAL COMPARISONS

by Ladislav Cerych

DIFFICULTIES

International comparisons of statistical data relating to higher education are motivated by at least two key concerns: on the one hand, by the desire to know or to show 'where a particular country stands with respect to others,' and, on the other, by analytical considerations, in this case an attempt to identify general trends or interactions between different factors not easily identified in a purely national perspective. The political use of such comparisons is obvious. If they are perceived as favourable, they legitimate, to some extent at least, the prevailing situation and policy. If they point to the opposite conclusion, they might serve as an argument for a new (more vigorous) policy, for additional resources or similar changes. In other words, international comparisons are by no means a negligible factor in the policy formulation process. Major international organizations such as the OECD and UNESCO have played a key role in this respect. Their statistical surveys are essential reference documents.

At the same time, international comparisons of higher education statistics have been increasingly criticized and their relevance contested. Most frequently in relation to the meaning of words: the same term means different things in different countries. For example, an institution called 'university' in the UK is not the same as a German or Italian university; the French doctorate implies requirements different from those associated with the British PhD; a student receiving his degree after three years full-time study cannot easily be compared with one staying on at university for six years.

A more serious difficulty arises from differences in coverage: what some countries consider as higher education, others include in secondary; in some countries, particular sectors of higher education (eg private institutions or certain types of higher education for adults) are recorded adequately and in others they are not.

A third problem is that while some countries have relatively good comprehensive data collection systems others do not.

International organizations have made a great and at least partly successful effort to respond to such criticisms. Obviously, not all the

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difficulties have been solved, but significant progress has been made. The improvements are due mainly to what might be called an 'integrated functional approach' to the data classification: viewing higher education as 'an integrated system based upon a thorough understanding of education systems and upon a particular theory of functions and activities of various parts of such systems.'[1]

The term 'integrated' refers here to an effort to consider higher education as a whole without giving decisive significance to terms (eg university, college, grande école, etc.) used in different countries. In fact, even the term 'higher education' has been replaced in most international statistics by the more comprehensive terms 'post-secondary' or 'tertiary' education.

The 'functionality' in the new approach can best be explained by a simple example: instead of comparing the number of doctorates awarded, the international statistics started to speak of and compare 'first level' and 'higher level' degrees awarded. In practice, this meant that the numbers of Austrian doctorates were compared with British BAs or French 'licences' on the grounds that the function of both is to serve as a first terminal university-level degree obtained after the prescribed minimum length of studies in the countries concerned (whatever this minimum may be).

There are two very important reasons why most comparisons are still not entirely satisfactory. First, since the late 60s or early 70s, many countries have witnessed a growing resistance to any increase in the number of centrally administered questionnaires and other data gathering operations. Both sample surveys and censuses have become more difficult in spite of, and perhaps because of, vastly improved data collection, treatment and storage methods resulting from the progress in the use of computer technologies.

Secondly, developments within higher education itself have led to new problems and made traditional classifications at least partly obsolete. Such developments include in particular most changes which can be grouped under the heading diversification, including the creation of new types of institutions, the entry of new categories of students into the system and the emergence of new fields of study and degrees. At the same time, the boundaries between the new and old categories of students, of patterns of attendance and study, or of disciplines are becoming increasingly blurred as are the boundaries of higher education systems in general. What is and what is not higher education is often an open question.

We stress, however, that the problems and difficulties involved in compiling international comparisons of higher education statistics are not valid reasons for rejecting them altogether. A better understanding of such

[1]S. Colton (1979) Chaotic uniformity in European higher education statistics *European Journal of Education* (4) 379-387

problems should rather serve as a reminder of the caution necessary in interpreting international comparisons and as a challenge to improve them, since the desire to emulate or outpace other countries is a legitimate political aim while more analytic comparisons can help to pinpoint particular problem areas.

BRITISH PERFORMANCE IN PERSPECTIVE

The British system of post-compulsory education is different from and in many ways more complex than most of its European counterparts. The complexity results essentially from a high degree of decentralization which to some might appear as fragmentation, both in geographic and decision-making terms. Statistically, this fragmentation poses problems, especially to outside observers who, in fact, are faced not with one but with six systems corresponding to public sector institutions in the four territorial units of England, Wales, Scotland and Northern Ireland, in the autonomous traditional universities and in the Open University. For any meaningful international comparison, statistical data relating to these six sub-systems must be aggregated, which is not always easy. Hence the frequency of footnotes in international tables after the UK figures: 'England and Wales only', 'not including Northern Ireland' or 'universities only'. This does not significantly affect the comparability of various ratios (eg new entrants as a proportion of a given age group), but in general UK statistics are likely to understate the real situation because of the all-too-easy omission of some segments of the system.

Other problems arise from the unique features of British higher education. Obviously, every country has some; the French have their grandes écoles, the Italians their differentiation between students 'inscritti' and students 'fuori corso', and the Germans their 'Gesamthochschule'. But the British system is characterized time and again by features which have no equivalent or counterpart elsewhere in Europe[1] and many of these have important implications for the interpretation of international comparisons.

As already mentioned, the first difficulty arises from the complex structure of the system. International classifications usually require a breakdown into university-type and non-university-type higher education. This in Britain implies:

1 for 'all university-type higher education':
   a all courses provided by universities;
   b all courses listed as of 'degree level' (CNAA) in the public sector;
   c postgraduate courses in colleges of education
2 for 'non-university-type higher education':

[1]Nor, for that matter, in the USA although such counterparts can usually be found in at least some of the Commonwealth countries.

a courses in teacher training establishments not included in 1b above;[1]
b 'below degree level courses' leading mainly to higher national diplomas (HND) and higher national certificates (HNC);
c 'other advanced level courses' in further education.

This breakdown is often difficult to implement because some institutions (mainly different FE colleges) simultaneously offer both non-university higher education and courses at the level of secondary education. While the latter clearly should not be included in an international comparison of higher education, the FE colleges cannot be omitted altogether since they also constitute an important part of the British non-university higher education sector.

More important for the interpretation of international comparisons is perhaps the relatively *short duration and concentrated nature of studies* in the UK: three years intensive full-time study instead of a theoretical minimum of four and a real average of five, six or over in many other European countries. At the same time, drop-out rates are much lower in British higher education, and particularly in universities, than in the rest of Western Europe. Consequently, the relation between the number of degrees awarded and total enrolments is quite different. This is shown in Table 1, which compares the UK with France, Germany and Italy, all of which have a population of the same order of magnitude. With the lowest total enrolments, British higher education awards the highest number of degrees. Compared to France and Italy, it can be said that, with approximately half the number of students, the British system produces the same or a slightly greater number of graduates.

In the past, this double comparison was often used, especially outside Britain, in order to point out the inefficiencies of some of the Continental European systems, the main indicator of efficiency being precisely a favourable ratio between the number of new entrants and of graduates, ie a low drop-out ratio. We shall see that this argument is now less readily accepted, but in any case a comparison of British enrolments with those of other countries can clearly be misleading if the duration of studies and drop-out aspects are not taken into consideration.

This affects, in particular, international comparisons of enrolment and graduation ratios. If the development of higher education is measured by the relation between the total number of students and the population of a standard age group — say twenty to twenty-four — then obviously the British ratio will appear as relatively low, standing in general at about $^2/_3$, or (sometimes) only one half of the ratios for the more advanced Western

[1]However, according to more recent international classifications, these courses are included under 'university-type higher education'.

European countries. If, on the other hand, we relate the number of degrees awarded to the population of a single age group the British ratio is among the highest in Western Europe.

Another important feature of British higher education with little or no parallel on the Continent is the clear distinction between full-time and part-time attendance. Most Western European countries have only one formal statistical student category: they do not differentiate between full and part-time studies although a very large proportion of those enrolled (in most fields other than medicine, dentistry and engineering) are also employed on a part-time or even full-time basis.

According to a recent survey covering six French and two Italian universities, nearly 60% of students declared that during their last year of undergraduate studies, they had been full-time, part-time or occasionally employed. If only the first two of these three job categories are considered, about 37% of the French students and 35% of the Italian students had part-time or full-time work and, therefore, almost by definition, studied on a part-time basis.[1] Fragmentary information suggests that this percentage is rapidly increasing. For example, according to another survey undertaken in France, it amounted to 18% in 1973[2], almost exactly one half of the 1982 figure.

The French and Italian situations are far from isolated; in some countries the proportion of de-facto part-time students will be lower, in others higher, but almost everywhere the contrast with Britain is sharp.

The impact on international statistical comparisons is obvious. Whereas in Britain part-time students are converted into full-time equivalents,[3] in most other West European countries, all students, irrespective of their real attendance status, are counted as identical units. Consequently, the latter category of figures will be, from the point of view of British statistical presentation, inflated, and vice-versa. Considering that part-time students in British universities represent slightly less than 10% of total (postgraduate and undergraduate) enrolments and close to 40% in advanced courses in the public sector, the overall British enrolment figures would probably be at least 15% higher[4] if the same method of calculation were used as elsewhere in Europe (ie no distinction between full-time and part-time students). This does not take account of the Open University, which is often

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[1] J.P. Jarousse (1982) *Sous-utilisation des Diplômés et Vécu de L'insertion Professionelle* IEEPS: Paris (mimeo) and C.de Frencesco (1982) *The Under-utilisation of Italian Graduates* IEEPS: Paris (mimeo)

[2] *Enquête CREDOC/IREDU* Quoted in J.P. Jarousse (1980) *Evolution du Comportement des Etudiants* CREDOC: Paris (mimeo)

[3] In many international comparisons, the British figures cover 'full-time-day-students only'.

[4] This is a very rough approximation.

not considered in international comparisons, though its inclusion would add another 10% to the British figures.[1]

There are of course other specific features of the British system which have no counterpart in Western Europe. But their statistical implications are in general less significant than those mentioned so far; or they are limited to a particular area only. This is the case, for example, in student distribution by field of study. Generally, the UNESCO classification or its adaptations are used for international comparisons. This poses specific problems from one country to the next: for instance, no law students appear in British university statistics, whereas they represent 10 to 15% of university enrolments in most other Western European nations. On the contrary, the rubric 'education' does not appear in most continental statistics (of university enrolments), but it is quite significant in the UK.

In general, however, international comparisons of students according to the major groups of fields study, such as the humanities, social sciences or natural sciences[2] are derived from relatively consistent criteria. In this respect we might note that the British percentage of university students enrolled in courses leading to degrees in science and technology (engineering studies) was significantly higher throughout the 70s than in virtually all the other Western European countries and the USA (close to 40% in the UK as against 20-30% elsewhere).

A major problem with regard to classification of students by field of study results from a relatively new trend or, more precisely, several related new developments: for example, the first years of higher education are increasingly organized on a basis other than that of the traditional disciplines; moreover, many students, again mainly in their first year or two, simultaneously take courses in different subjects or switch frequently from one to another, and new interdisciplinary areas of study are emerging. Similarly, it is becoming increasingly difficult to differentiate between university and non-university-type higher education, although in most countries, Britain included, the distinction from the institutional point of view is still very real.

Statistically, the problem of differentiating between these two categories, as well as between various fields of study, might be solved by presenting distribution with respect just to degrees awarded rather than enrolments or new entrants.

However, such distributions or classifications reflect only the traditional output aspect of higher education; they do not provide a picture of its internal processes or, in the case of some Western European countries, of certain of its new features, such as students who do not enrol with a view

[1] For a new aggregate estimate by the DES see footnote 1 p.140.

[2] Although the statistical distinction between humanities and social sciences is often arbitrary.

to obtaining a full degree (in Sweden this group are called 'single course students', and represent an estimated 50% or more of new entrants in several fields of study). This also means that drop-out ratios as measured in the past (ie by relating the number of graduates to the number of new entrants N years earlier (N corresponding to the average duration of studies) retain little significance.

RACING TO CATCH UP OR WAITING TO BE CAUGHT?

After all that has been said about the problems and inadequacies of international comparisons of higher education statistics, the question heading this last section might seem impossible to answer. Indeed, there is no *single* correct answer but, at best, *several* different answers corresponding to the different perspectives adopted: and each of these answers consists of approximate and somewhat subjective assessment rather than incontrovertible evidence. Moreover, it should be stressed that the comparisons discussed here concern no more than the purely *quantitative* aspects of the development of higher education: they do not imply qualitative comparisons.

It has already been shown in a brief discussion of Table 1 how different perspectives provide different answers to the question 'where does Britain stand in relation to others'. Tables 2, 3 and 4 offer more detailed information.

A relatively low proportion of the younger generation in the UK is qualified to enter university-type (degree-level) courses on the basis of the secondary education examination results 'normally' required for entry into university (two or more 'A' levels, see Table 2). Though the difference is, of course, overwhelming with respect to Japan and the USA (and also Canada where the percentage is 60.4 compared to the British 13.7) it is quite significant also in relation to several Western European countries (eg France or Germany) although some of the latter have ratios comparable to that in the UK (eg the Netherlands or Yugoslavia). The Swedish and Italian figures need to be compared to the British total — in which case we again find a quite substantial difference (65.9% and 55.0% as against 27.0%). While the Open University certainly provides an important compensation in that it extends access also to those not qualified in the traditional sense, it can still be reasonably argued that 'Britain is behind' in terms of the size of the potential pool on which degree-level education has drawn to date.

A consideration of Table 3, showing admission ratios to higher education, points in the same direction: the porportion of 18-year-olds entering higher education is lower than in all countries covered by the table.

If, however, appropriate corrections are made to include the Open University and to take account of the part-time/full-time statistical discrepancy, the British ratio would go up on a very tentative estimate

TABLE 1
New entrants, enrolments and degrees awarded in four European countries (000s)

	New entrants		Enrolments		Degrees awarded	
	1965/66	1975/76	1965/66	1975/76	1965/66	1975/76
UK	111.4	154.0	309.4	514.8	38.0	76.0
France	182.8	229.2	524.9	1015.1	32.9	70.7
Germany (FR)	85.7	164.2	344.8	836.0	25.5	33.7
Italy	107.2	246.1	424.7	982.3	28.1	70.0

Source Cerych, L., Colton, S. and Jallade, J.P. (1981) *Student Flows and Expenditure in Higher Education (1965-1979)* Paris: Institute of Education

by about 20%.[1] This means that, in terms of proportions of the age group able to enter higher education, the UK figures would probably correspond to the Western European average although they would remain well below countries such as Denmark, France and Italy as well as the USA and Japan.

As already mentioned, Britain is clearly ahead of most other countries in terms of traditional higher education output, as expressed by the number of degrees awarded. The findings of Table 1 are reinforced by those of Table 4 which show that the proportion of the age group receiving a first-level university degree in the UK is significantly higher than in all Western European countries, with the possible exception of Sweden where it is about the same. The USA, Japan and Canada are again far ahead of Western Europe.

There is no simple answer to the question as to which are more relevant, the findings of Table 4 or those of Tables 2 and 3. Certainly, if we consider only the output in terms of graduates, Britain is well above the average of comparable countries. To some extent the very few comparable (and internationally available) indicators of quality point to similar conclusions. In particular, the student/teacher ratio in UK higher

[1]According to recent DES estimates the true figure of students entering higher higher education in Britain corresponds to about 30% of the age group, if proper account is taken of part-time students at the OU and in the public sector. We could not analyse the mode of calculation of this figure in order to compare it with corresponding data from other countries.

TABLE 2
Secondary school leaving qualifications (diplomas) opening access to higher education as percentage of corresponding age group (1977)

U: qualifying for entry into university-type higher education; NU: qualifying for entry into non-university-type higher education; T: total of U and NU

	U	NU	T
UK	13.7[1]	13.3[2]	27.0
Germany (FR)	16.7	5.6	22.3
France	18.0	6.6	24.6
Italy[3]			55.0
Netherlands	11.8	28.8	40.6
Sweden[3]			65.9
Yugoslavia	24.5	28.3	32.8
USA[4]			74.8
Japan[4]			86.3

[1]GCE with 2 or more 'A' levels and SCE with 3 or more 'H' grades
[2]GCE with less than 2 'A' levels and SCE with less than 3 'H' grades or GCE/CSE/SCE with 5 or more 'O' levels
[3]All types of secondary school leaving certificates (general, technical, etc.) opening access to all higher education including universities
[4]There is only one type of secondary education leaving certificate opening access to all higher education, including universities

Source OECD (1982) *Recent Trends in Education* Paris (mimeo)

education is much more satisfactory than in most other countries.[1] Similarly, the overall expenditure per student-year in higher education in the UK is the highest among all Western European countries, with the marked exception

[1]Since international comparisons in this area are very problematic, we do not discuss them here. Differences in teaching loads, in the structure of the academic staff and other considerations make it almost impossible to establish a measurement suitable for comparative purposes, and only some orders of magnitude can be advanced.

TABLE 3
Proportion of age group entering higher education (1977)

U: university-type higher education; NU: non-university-type higher education; T: total of U and NU

	U	NU	T
UK	9.4[1]	6.9	16.3[2]
Germany (FR)	13.5	5.0	18.5
Denmark	14.7	15.6	30.3
France	21.3	7.4	29.0
Italy			29.2
Netherlands	9.3	15.8[3]	25.1[3]
USA	27.4	29.9	57.3
Japan	26.3	11.3	37.6

[1]Universities only (excludes Open University)
[2]Not including Northern Ireland
[3]See under *Sources*

Sources OECD (1982) *Recent Trends in Education* Paris (mimeo);[3] Cerych et al. (1981) op. cit.

of the Netherlands and, to a lesser extent, Denmark.[1]

Finally, the short duration of studies and low drop-out ratios discussed above are, we believe, additional arguments in favour of a relatively favourable answer to the question 'where does the UK stand in general

[1] See Cerych, L., Colton, S. and Jallade, J.P. (1981) *Student Flows and Expenditure in Higher Education (1965-1979)* Paris: Institute of Education (Based on Unesco figures. Another country with high expenditure per student is Switzerland but this results almost certainly from the very high exchange rate of the Swiss franc used as basis for the comparison.)

TABLE 4
Proportion of age group receiving a first-level university degree and a non-university degree (1977)

U: 'first-level university degrees'; NU: degrees or diplomas of non-university-type higher education ('below degree level'); T: total of U and NU

	U	NU	T
UK	14.5[1]	3.8	18.3
Germany (FR)	9.0	3.1	12.1
Austria	4.9		
Spain	6.9	4.9	11.8
France	7.5	4.4	11.9
Italy	9.4		
Netherlands	4.7	10.0	14.7
Sweden[2]	12.2	6.2	18.4
Yugoslavia	6.5	5.5	12.0
USA	25.3[3]		
Japan	20.3	9.5	29.8

[1] Degrees awarded by universities, Open University and CNAA
[2] 1976
[3] Bachelors and 'First professional'

Source OECD (1982) *Recent Trends in Education* Paris (mimeo)

compared to other countries?'[1] Once again, however, it must be stressed that there is *no general single* answer to the question. Criteria of drop-out and the number of full degrees awarded might not be considered to have the same significance as previously. If higher education development is assessed partly in terms of the diversity of options which it provides to mature and employed students, to those aiming at less than full degree

[1] Given that international comparisons reflect statistical data which are usually at least three and often five years out of date, our 'global appreciations' do not reflect the very latest developments. Although we do not believe that fundamental changes in the relative position of the UK or any other European countries took place during this period, this cannot be totally excluded.

work, or to those who want to switch sectors or patterns of study, then the answer may not necessarily be the same. Interestingly, British higher education was for a long time ahead of that in most other European countries in precisely this respect: for example very little could be found on the Continent before the early 1970s to compare with University of London external degrees, sandwich courses, university extra-mural departments and the Open University.

In our view, however, this situation now no longer applies. Moreover, it appears that the 'non-traditional options' are, in the British case, almost detached if not isolated from the 'normal' systems and, quantitatively, relatively marginal (with the exception of the OU). In several other Western European countries, the new options have now[1] penetrated the traditional system on a considerably larger scale.

The increasing number of part-time students (statistically unrecorded) as well as the growth of 'single course students' (non-degree-credit students) are among the indicators of this development. Another is the rapidly increasing average age of students on the Continent, but not in the UK. Thus, in British universities, students aged twenty-five or over represented about 4% of the total of new entrants in 1965 and not more than 6% in 1979, while the French figure for 1979 was above 10% and the Swedish one for 1976 close to 50%.[2] If total enrolments throughout the whole of higher education are considered, students over twenty-five represented:[3]

— in the UK[4]	12.6% in 1965 17.4% in 1975
— in France	20.5% in 1965 31.7% in 1977
— in Germany	23.3% in 1965 35.8% in 1976
— in Sweden	34.9% in 1970 56.3% in 1978
— in Switzerland (universities only)	36.0% in 1970 39.4% in 1978

In the past the ageing of the student population was generally considered to be undesirable. Today, although the increasing average age

[1] Sometimes, probably at the expense of the more traditional functions of higher education, in particular, research.
[2] OECD (1982) op.cit.
[3] Cerych, Colton, Jallade (1981) op.cit. pp.72
[4] Without Open University students, whose inclusion would increase the average age of British students by about 1.5 to 2 years.

of students is no doubt still partly due to 'the inefficiencies' of the respective systems, such as high failure rate, it also reflects the new types of students entering higher education and new attendance and study patterns[1] or, in other words, the more diversified options. In this respect, obviously, the British system is 'behind' several Western European ones, at least as far as university-type higher education is concerned. In spite of its complexity and diversity in terms of the authorities responsible for its operation, it is a relatively homogeneous system in terms of admission and study regulations.

For some, both in the UK and elsewhere, such homogeneity might be a condition of academic excellence and, therefore, far from a drawback; for others, it might reflect a certain lack of adaptation to present economic and social needs.

International statistics of trends are probably more reliable than are comparisons amongst countries at a given time. An answer to the question 'where does Britain stand in relation to other countries?' should be based not just on a comparison of figures and ratios at a particular time. It might indeed be more significant to know that the relatively favourable or unfavourable rating of a country is deteriorating or improving.

A detailed analysis of trends is beyond the scope of this role. However, the relative positions of the different countries changed little over the past two decades because many important trends are common to the majority: they include the rapid growth of enrolments in the 60s, as well as the slower growth or stagnation of student numbers in the second half of the 70s. However, it is worth noting that the latter trend was particularly pronounced in Britain, especially with respect to the ratios of secondary school leavers qualified to enter university degree-level courses. The proportion of the age group with 'A' level or similar qualifications barely changed between 1972/73 and 1980/81, remaining a virtually constant 14 to 15%.[2] Such a prolonged stagnation in the size of the traditionally most important pool of new entrants into higher education was unknown in other Western European countries. In most, this pool was still growing in the course of the 70s in spite of the slower growth of higher education itself.[3] Considering that the British ratio is among the lowest (see Table 2 above), its stagnation

[1] Clearly, in some cases and in particular the Swedish one, the development might have gone too far, and indeed measures have been taken to increase the proportions of 'traditional' young students.

[2] See Shattock, M. (1981) Demography and social class: The fluctuating demand for higher education in Britain *European Journal of Education* 16 (3-4) 381-392 (based on DES *Higher Education into the 1990s* and DES *Statistical Bulletin 6/81*)

[3] Thus, for example, in Germany we notice an increase of the corresponding ratio from 11.4% in 1970 to 17.5% in 1978; in France, from 16.2% in 1970 to 18.2% in 1978, in Italy, from 44.3% in 1970 to 55.9% in 1976.

over the past eight to ten years might obviously prompt serious misgivings about the answer to the question 'where does Britain stand in relation to other countries?'

Another aspect of British higher education where very little change has taken place since the middle of the 60s is the quantitative relation between university and non-university type higher education. In 1965, the number of diplomas and certificates (HND, HNC, etc.) awarded by the non-university sector represented 15.9% and, in 1977, 16.8% of the total of degrees, diplomas and certificates awarded by UK higher education as a whole. In many of the Western European countries, the percentages of non-university qualifications are now much higher.

For example, in Germany 28% of all degrees and diplomas awarded are of the non-university type ('below degree level'). The figures for France are 44% and for the Netherlands 68% (as compared with the 16.8% for the UK).[1]

All these figures, we suggest, are further confirmation of the continuing homogeneity of the British system, in which patterns and forms of higher education other than those leading to a traditional full-degree level remain relatively marginal. It can be argued that the most important aspects of higher education concern the output of the system precisely in terms of traditional university-level degrees awarded, in which case the UK remains continuously ahead. But others might counter this argument by insisting that the development and state of modern higher education cannot be measured solely by its output in terms of traditional university degrees.

[1]OECD (1982) op.cit.

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